JANUARY 22, 1944

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Railway Age

Founded in 1856

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FREIGHT LOCOMOTIVE

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ON THE RAILS . . . IN THE SHOPS

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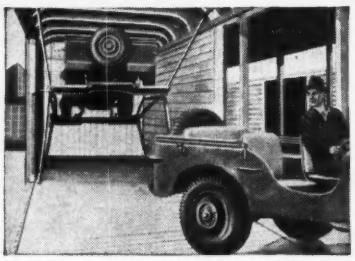
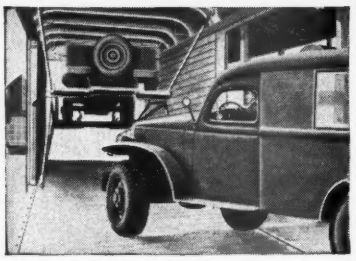
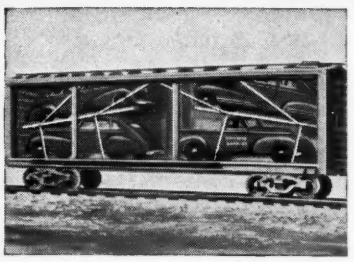
BALDWIN SERVES THE NATION WHICH THE RAILROADS HELPED TO BUILD



War vehicles are quickly loaded into Evans Auto-Loader equipped box cars where they are held firmly and securely in place for safe shipment.



Evans Auto-Loader is designed to transport all types of automobiles. Mixed loads of jeeps, trucks and ambulances carried in a single box car.



Showing how four automobiles are cradled safely in an Auto-Loader box car . . . shippers and receivers are saved millions of dollars annually.

horsepower for the infantry

Jeeps—spirited little steeds of the infantry—are the galloping messengers of invasion on every front.

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This ingenious equipment makes it possible to ship *more* automobiles in one box car with complete safety . . . holds them securely in transit . . . speeds loading and unloading. And the result is a substantial saving in shipping costs.

When the passenger car production lines start rolling again, thousands of Auto-Loader equipped box cars will speed millions of new automobiles to dealers . . . and *yours* will arrive unscratched, undamaged—ready to serve your transportation needs.

* * *

Vision to Anticipate the Needs of Tomorrow
Creates New Industries Today

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In This Issue

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How Railroads Have Done So Well 229

An industrialist recently revealed to R. E. Woodruff, president of the Erie, his belief that railroads were "sleepy, backward and antiquated." "He was amazed at what had been done," declares Mr. Woodruff. Herein he explains why it is that the railroads have been able to handle the surge of war traffic, and he examines their post-war prospects as well.

C. N. Montreal Terminal Has New Type of Interlocking 232

One central machine, differing from any used previously, now controls 57 switches, 64 crossovers and 197 signals on 9 road miles.—Traffic through this interlocker averages 140 passenger trains daily, about 95 freight trains, besides numerous other movements connected with changing of engines and switching.

Design and Construction Methods Feature Long Concrete Trestle 236

Soon to be put into service, this structure will carry a single-track line across a potential overflow area in a flood control project. It is built in two sections—18,751 ft. and 312 ft., and thorough studies preceded actual construction, to insure permanence, adaptability, minimum maintenance and over-all economy of the trestle.

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The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

★

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War-time transportation expedited
in 22 "Union" CAR RETARDER
equipped yards!

MANY of the 22 installations of "Union" Car Retarders and power-operated switches were placed in service, before the war, to make available at all hours regardless of weather conditions the peak capacity of the yards.

Today, all of these 22 yards are experiencing heavier traffic than ever before. The humping records made under yesterday's peace-time operation are being exceeded regularly in their every-day operation with war-time traffic.

Trains are moved promptly from the receiving yard and cars are classified rapidly for departing road trains because "Union" Car Retarders permit full use of yard facilities. Yard congestion and yard delays are largely eliminated. Safety for both men and equipment is increased. Engine hours are greatly reduced. And, in many cases, the consequent reduction or elimination of switching at other points results in accelerated movement of freight over the entire system.

UNION SWITCH & SIGNAL COMPANY

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The Week at a Glance

PAY UP, ARMY OUT: A detailed account of the settlement of the last of the wage controversies, and the return of the railways to their owners, appears elsewhere herein. The non-ops were granted 9-11 cents hourly increases, the whole controversy having been precipitated in the first place by Stabilizer Vinson's refusal, persisted in for months, to let the boys have 8 cents per hour more. That would have been "inflationary," but by the casuistry of a few "in lieus" inserted into the argument, a larger increase becomes non-inflationary. Mr. Pelley has thanked the President for the efficiency and understanding with which the Army played its part in this episode.

●

CAUSE OF RENNERT WRECK: The I. C. C. and the railroads have been offered a lot of free-lance suggestions of preventives for such accidents as that near Rennert, N. C., but the I. C. C. report, reviewed in news pages herein, shows none of these would have served. The crew at the head-end of the derailed southward train did not know the northward track was fouled, and did not use effectively the devices available to them to stop the northbound train. Not new gadgets, but the proper use of the devices already available, was what was lacking.

●

PROTEST CARS TO CANADA: Citizens of the Northwest grain country and Senators Wheeler and Reed made known their displeasure in Washington this week at governmental pressure put on the railroads to send cars to Canada when elevators south of the border are blocked. The report of the proceedings, in our news pages, discloses some disagreement within the A. A. R. as to what the carriers' course should be. Probably lacking legal power to require the railroads to part with their cars, governmental agencies appear to have accomplished the same result by a "request" which it was possible to construe as the will of the President. Some of the federal officials involved in the transaction were taken for a pretty rough ride by the inquisitive senators, and it looks as if the mandatory "request" for a specific quantity will be altered to permit the railroads to do their best in their own way.

●

***HOW* THE PRESENT RECORD?:** Robert E. Woodruff, the Erie's president, in a paper in this issue, surveys the causes of the railroads' surprising record in the handling of wartime traffic. Aside from more thoroughgoing control of cars and collaboration with shippers and the armed forces, Mr. Woodruff enumerates a dozen or more innovations which contributed to the remarkable results secured—not the least of them being the systematic training of supervisory forces. The Erie's analytical executive also turns his attention to the future, of which he takes a hopeful view: provided foreseen conditions are dealt with realistically.

●

LONG CONCRETE TRESTLE: A 5-mile single track concrete trestle, 25 ft. higher than surrounding ground, is an unusual structure described (but not identified as to location or ownership) in an illustrated article herein. Its purpose is to convey a railroad across an area of potential overflow in a flood control area—soil, loam and silty clay, with many sand pockets. All piers rest on concrete footings, which are supported by timber or steel-encased concrete piling.

●

OVERWORKED EMPLOYEES: Instances of absenteeism among train crews as high as 30 per cent, due to illness brought on by months of steadily "getting out on their rest," were reported by President R. W. Brown of the Lehigh Valley to the Atlantic Shippers' Board at their meeting, reported herein. The Lehigh executive expects the manpower situation to ameliorate in a few months, but he doesn't see its end as long as railroad employees receive less money than workers in adjacent industry.

●

GRACEFULLY ON THIN ICE: O. D. T.'s informed traffic movement director, Henry McCarthy, told the Atlantic Shippers that the transportation machine is skating along rapidly and smoothly on ice of a thickness upon which deceleration would entail discouraging consequences. He warned the traders once again to adjust their "shipping patterns" to save more car-days—a plea often uttered before but so far taken little to heart. The dynamic former passenger executive also believes the business community should be doing more to conserve travel space by ceasing to make advance block bookings for conjectural journeys and by easing up on conventions.

●

BLACK MARKET TICKETS: Mr. Eastman has written to mayors of more than 100 cities, enclosing a copy of New York's recently-enacted local law, providing punishment for "middlemen" in railroad train space sales who charge more than $1 above regular tariff rates. The O. D. T. director has asked his addressees to inquire around to see whether this racket is epidemic in their satrapies and, if so, Mr. Eastman would like to be informed; and he would also appreciate their enacting appropriate ordinances to discourage such knavery. Some of these scalawags are reported to have mulcted their victims of as much as $50 for a single reservation and, occasionally, it is said, their rascality has been abetted by railroad employees.

●

VIOLENCE CONDONED: The Supreme Court has found that there was violence in the T. P. & W. strike, against which police protection was inadequate. Nevertheless, it has held, the carrier was not entitled to relief by injunction against such violence because he had not accepted arbitration under the Railway Labor Act—a course which is optional under the law. The court decision rests on the Norris-LaGuardia Act, which Congress enacted and could repeal—hence Congress must share the responsibiity for the exposure of life and property to violence, for lack of protection by injunction, which now appears to be the law of the land.

LABOR LAWS' EXTINCTION: Although both the Railway Labor Act and the Stabilization Act remain on the statute books, they are embalmed and buried in practical effect by Administration intervention—so concludes the leading editorial herein after surveying the elaborate detour around these statutes in recent handling of railway labor cases. Government, in the form of the executive, has intervened to award railway employees 40 per cent more in increases than the machinery of the Railway Labor Act conceded to them. The stabilization officials, who held out against 8-cent increases for seven months, have now, under union coercion, approved 40 to 50 per cent more than that.

●

THE WAGES OF COERCION: It has heretofore been a fundamental principle of our kind of government that only the state should exercise force. That a private sovereignty within the state, with coercive powers even against the state, should be tolerated—was not this the fatal error of Germany with the Nazis, and of Italy with the Fascisti? Having found that they could with impunity use such coercion in a limited sphere and sporadically, the European fuehrers of a group within the state soon became the fuehrers of the state itself.

●

SAYS CHILDE LACKS BIAS: Such is the comment of the Atlanta "Constitution" on the Omaha member of the Board of Investigation and Research, in commending a recent speech in which, descending from the seat of judgment, he urged southerners to press for legislative rate-making, to give effect to the southern governors' (and his) views on territorial rate equalization. The "Constitution" in praising Mr. Childe's logic and lack of prejudice quotes him as having come to his conclusion on rates "from studies we have made and are making"—neglecting to record that the Nebraska polemicist expounded similar opinions long before he engaged in study of the issue as a member of the Board of Investigation and Research.

●

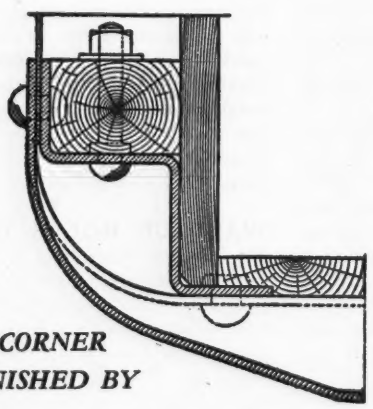
WALLACE HOLDS THE STUMP: The South is being kept in "colonial status" by "discriminatory differentials in transportation costs"—so, Henry Agard Wallace, noted authority on transportation and the overproduction of pork, assured the Southern Governors' Conference, meeting in Washington on January 17. The Vice-President urged the South's governors to enlist their Western colleagues in their program to substitute legislative fiat for informed judicial adjustment in complex rate controversies. The Dixie delegation called at the White House and Thomas L. Stokes in the Scripps-Howard papers said the President gave them "an encouraging word." A few days prior to his experting for the Southern politicos on freight rates, Mr. Wallace addressed a C. I. O. convention in defense of "little business." His execration of magnitude and monopoly makes an exception, apparently, when it hits upon Big Labor—for which, of course, "little business" makes easy pickings.

FREIGHT CARS ARE RECEIVING SEVERE PUNISHMENT IN THIS EMERGENCY.

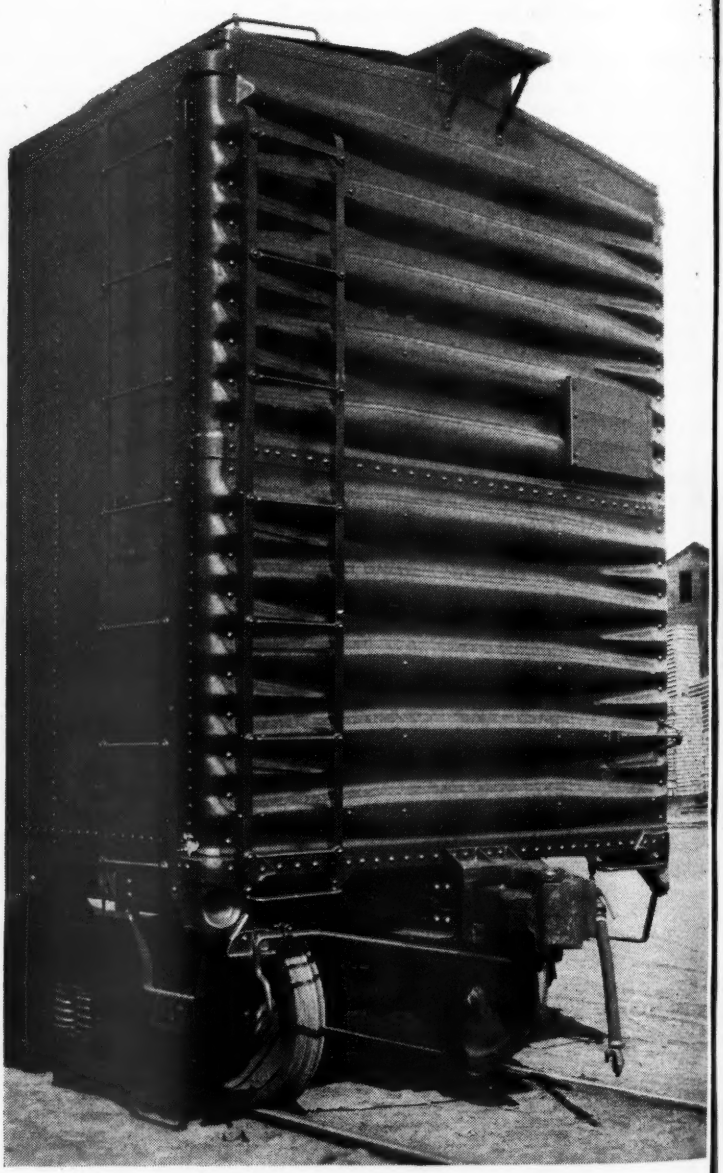
MAINTENANCE RECORDS WILL SHOW THAT CARS WITH

Round Corner

DREADNAUGHT ENDS AND W-SECTION CORNER POSTS ARE PROVING THEIR VALUE.



W-SECTION CORNER POSTS FURNISHED BY BUILDER.



STANDARD RAILWAY EQUIPMENT MFG. COMPANY

HAMMOND, INDIANA

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Efficiency FOR VICTORY

Labor Coercion of Government and Public

How completely the Railway Labor Act and the Stabilization Act have broken down is indicated by the fact that the total wage advances finally made to railway employees are about 40 per cent larger than those recommended by the government boards appointed last year in accordance with the Railway Labor Act.

Statements are being made that the increase in excess of those recommended by the boards is "in lieu of overtime," to cover expenses incurred by employees when away from home, and so on. This is mere subterfuge, and does not alter the indisputable facts (1) that the employees' pay will be increased much more than the government boards decided it could be under the Stabilization Act; (2) that this will give the employees purchasing power tending to cause the inflation that the Stabilization Act was intended to prevent; (3) that it may so greatly increase railway expenses as to justify advances in rates; and (4) that it will encourage movements by other labor unions for inflationary increases in wages tending to justify inflationary advances in prices.

As important as these facts are, of more significance are the means by which advances far exceeding those originally recommended have been secured. The purpose of the Railway Labor Act is to cause labor disputes to be settled by collective bargaining, arbitration, mediation or hearings and recommendations by government boards—i.e., without strikes or threats of strikes. Advances in railway wages in excess of those recommended by a government board under the Railway Labor Act were secured by the threat of a strike and the intervention of President Roosevelt on the eve of war in 1941. The further advances in excess of those recommended by government boards in 1943 have been secured now in the midst of war by the same means. What reasonable hope can there be that the process of the Railway Labor Act will cause peaceful settlements of disputes after the war when it has so completely failed to do so on the eve of and during war?

Until passage of the Norris-La Guardia Act in 1932 federal courts could issue injunctions restraining either business leaders or labor leaders from exercising monopoly power in disregard of the public interest. The authority of the courts to issue injunctions restraining labor unions from exercising monopoly power was abolished by that act. The Smith-Connally Act of 1943 prohibits strikes only after the industries in which they are threatened have been placed and are being held under government control. It thus leaves labor unions monopoly power to force government, at any time or for any reason they see fit, to choose between strikes and government control of industry. And this power of the unions actually is vested in their leaders; for the leaders prepare, distribute and receive the strike ballots, and count—or at any rate report—the vote; and they always report that, by an overwhelming majority, the vote favors a strike.

The power of coercion consequently now possessed and exercised by labor leaders is much the greatest power that ever has been possessed and exercised by any group of private citizens in the history of the United States. And recently we have seen it used to coerce not only business, but government and the public. For it has been the use of this power by labor leaders which has been causing government to make advances in wages in the coal mines and on the railways which exceed those recommended by its own boards. And these advances in wages will make it necessary for the public to pay

prices for coal and rates for transportation that otherwise would be unwarranted.

It is a fundamental principle of our constitutional system that only government has authority to use coercion. When private individuals or organizations are allowed by government to use coercion against anybody, and especially against government itself, our constitutional system has been to that extent superseded by Nazism. The remedy is not for government, at the expense of the public, to buy off the private individuals or organizations using coercion, as it has been doing. The remedy is for government to exercise its paramount authority by (1) stopping private coercion and (2) providing "equal rights for all; special privileges for none."

Government Competition In Industry and Transport

The federal government owns manufacturing facilities (buildings and machinery) representing an investment which, by the end of 1944, will total over $18 billions. The disposition made of these plants at the end of the war could go a long way toward wrecking private capitalism in the manufacturing industry. One alternative is that the government could sell them at scrap prices to favored buyers—thus enabling them to engage in peace-time production at prices which would drive out of business competing producers who paid 100 cents on the dollar for their plants. Another alternative is that these government-owned plants might be put in frankly socialistic production—tax-free and interest-free—also making it difficult for competitors financed by private capital, and paying taxes, to survive.

Manufacturers faced with the threat of such competition are properly alarmed, and are doing their best to awaken the public to a knowledge of principles of private enterprise, and the advantages thereof, in order that there may be strong popular support for a national policy of so disposing of these government plants that they would not be withheld permanently from peace-time production, but would be introduced gradually into regular channels of trade on terms that would not be ruinous to owners of competing plants.

It so happens that the federal, state and local governments have an investment in transportation plant (highways, improved waterways, airports) which equals or exceeds that which the federal government has in manufacturing facilities. These transport facilities, untaxed and not required to earn interest on the investment, are being used to offer transportation at below-cost prices in competition with the privately-financed, tax-paying railroads. In other words, upon an equal or larger scale, *exactly that unhealthy condition of public investment competing with private investment already exists in transportation from which manufacturers are praying the public to save them when the war is over.*

Indeed, competition with the privately-owned railroads from untaxed, non-interest-earning government investment—already at least equal in magnitude to that which the manufacturing industry fears it *may* have to face—promises to begin increasing immediately the war ends. President Roosevelt last week asked Congress to approve plans for the construction of a vast inter-regional system of superhighways—but suggested no provision that their users be required to pay one cent of tolls to recompense the public treasury for the outlay. The St. Lawrence Seaway and other large waterway projects are already being dusted off as post-war "unemployment relief" measures; and additional hundreds of tax-financed airports are on the drawing boards.

Industrial interests who so sincerely deplore the prospect of socialized competition *with themselves* are either being discreetly quiet about the proposed increase of socialism in transportation, or are actively promoting it. Will it not be rather embarrassing to the manufacturers if the public awakens to a realization that business and industry have glaringly failed in the past, and are still failing, to apply to transportation the principles which they advocate with such vigor and show of patriotic conviction, for the protection of their own interests?

Heating Passenger Cars of the Future

Railway mechanical officers responsible for the operation and maintenance of passenger cars are so busy with the urgent task of somehow providing enough equipment to move present traffic that they have little time to speculate about postwar requirements. This subject is, nevertheless, receiving the earnest consideration of design engineers employed both by railroads and by supply companies, who co-operate in developing improved equipment and devices for railway service.

Comfort is always a major consideration, and during the heating season this means proper distribution of an adequate amount of heat.

Car heating improvements now in effect, or projected, apparently promise to meet all of the requirements and have the important added advantages of relatively fewer separate unit parts, greater reliability, reduced maintenance and appreciable savings in weight, up to 20 per cent. Applications of much of this improved heating and air-conditioning equipment have been worked out in detail and successfully demonstrated on practically all types of passenger cars.

In a modern coach experience seems to indicate that basic floor heat can best be supplied by means of four separate radiation units with control thermostats located, one in the car-end passageway opposite the air-conditioning unit, one in the main passenger compartment, and one in each smoking room. No de-

tail promising added passenger comfort or more efficient operation is too small to receive attention by the car heating experts. For instance, they specify and provide for a few degrees lower temperature in the men's smoking room than in the main compartment, a few degrees excess temperature in the women's smoking room, especially at night; and they earnestly recommend the use of an additional floor thermostat in the main compartment so that one can be installed on each side and individually adjusted in accordance with the sun-load and wind conditions.

Overhead heat is designed to supply about 25 per cent of the full heating requirements, and experience shows that when it is delivered through the ceiling ducts at a few degrees less than the rising floor heat temperature, there is less possibility of air stratification with its highly-objectionable effect upon passengers. A recent important improvement enables the overhead heat to carry most of the heating load during mild weather and transfers the load to the floor radiation as outside temperatures drop.

Greater simplicity will be a major objective in passenger-car heating equipment of the future, this goal being achieved to a greater or lesser degree by means of improved fin-type radiation units, control valves, thermostats and actuating relays arranged wherever

A Poor Time to Remove the Crew

"One Good Railroad Man on a Railroad Is Worth a Thousand Railroad Men in the Army."
—Commissioner J. Monroe Johnson, I. C. C.

possible for easy removal for inspection or replacement. Much has already been accomplished in simplifying air-conditioning controls, also, so that they will change automatically from modulation of the cooling cycle through ventilation to heating, and the reverse.

It is proposed to install underneath piping, including the steam regulators and other control equipment, in simple units which can be easily applied and maintained. In this connection, the recommended trainline size is a minimum of 2½ in. inside diameter, not 2 in. as stated in an editorial entitled "Checking Steam Heat" which appeared in the *Railway Age* of October 30, 1943.

To Regiment Everybody?

The present administration has enjoyed more power over the actions and fortunes of the people than any other in the country's history, and it has exercised this power up to the hilt against business and other sections of the community which are not the source of its political strength. On the contrary, it has not up till now sought great additional authority over labor organizations and has used with greatest delicacy and restraint the power that it has had.

For example, the Railway Labor Act provides no punitive sanctions for the enforcement of decisions of fact-finding boards named under its provisions. Instead the Act relies upon the force of public opinion, led by the President who controls the membership of these boards, to quell any disposition on the part of an unsatisfied contestant to refuse to abide by a board decision. In practice, however, President Roosevelt has not supported awards of these fact-finding boards when unions have been dissatisfied with them, but has used the prestige of his office to induce the railroads to make concessions beyond those which these boards have determined to be just and reasonable.

With the excuse of recent union recalcitrancy, President Roosevelt has now asked Congress to give the executive arm of the government power to regiment —not just organized labor which has misbehaved—but the nation's entire adult population. What assurance can there be that if such power were given, it would not be used for political purposes, in view of recent developments showing that the government is much more disposed to use the power it already has to seize the property of those who fully co-operate with it in carrying on the war, than to use it against unions threatening to interrupt the war by strikes for higher wages than those recommended by government boards?

The use thus far made of government power during the war in dealing with labor unions does not indicate that governmental power to dictate what should be done by virtually the entire adult population would be used without regard for possible political consequences. Quite the contrary.

Manpower Shortage Is Nearing a Crisis

We have directed attention in several recent issues to the situation that is developing with respect to the adequacy of the supply of labor available to the railways. However, repetition is warranted since conditions are becoming so acute as to threaten the continued ability of the railways to meet civilian and war transportation demands.

The railways have received widespread commendation for their remarkable contribution to the nation's war effort, and justifiably so. To date, they have met virtually all demands, in spite of the fact that demands have exceeded every expectation. They cannot continue indefinitely to do so, however, unless they are given more assistance in the maintenance of an adequate working force.

President R. W. Brown of the Lehigh Valley, in his address to the Atlantic States Shippers' Board, reported elsewhere in these pages, reveals the acute seriousness of conditions in that area. At another point, with 15 locomotives in switching service idle in a single terminal because of lack of switchmen, the effect on the movement of vital war and other traffic is evident. This situation prevails in degree at many other points. It is not confined to switchmen, for trains are being held at many terminals awaiting trainmen, and locomotives are being delayed because of lack of enginehouse forces to service them. Although not as evident in its immediate effects, the problem is equally menacing in the roadway department, where the shortage of track labor is making impossible replacements needed due to abnormal wear and tear and is leading to a weakened structure which is giving way with increasing frequency.

The increasing extension of this problem, both geographically and through the various branches of service, makes it the Number One problem of the railways. If they fail to meet the demands of traffic, the disaster probably will come from this source. Because of the importance of uninterrupted transportation to the nation's present war effort, the threatened breakdown of railway service becomes of national concern.

Recognition is due the Railway Retirement Board for its aid in recruiting new employees, particularly Mexican nationals, for track and equipment repair, but these efforts, although helpful, are inadequate to the emergency. The first and most needed step is to put a stop to further inroads of the selective service on railway personnel. Favorable action on the recommendation of Interstate Commerce Commissioner Johnson that 200,000 railway men now in military service be returned to the railways would be a constructive contribution to the war effort.

The problem of railway manpower is a matter of national importance and demands national consideration and action.

How Railroads Have Done So Well*

The "mystery" of how the railroads have managed to do so much better in handling war traffic than was expected of them is examined as to causes, and post-war prospects of the railroads are surveyed

By R. E. Woodruff

President, Erie

THE seizure of the railroads on December 27 is entirely different in character from the method employed by the government in taking them over during the First World War, in that each railroad is now being operated by its own organization, which is functioning to date exactly as it was before. The Army has been instructed to interfere as little as possible in the actual operation and we all hope that government possession will soon terminate.

How Could "Sleepy" Railroads Be So Alert?

An industrialist recently told me he didn't understand how the railroads had done so well in this war as compared with the First World War. He had looked upon railroads as sleepy, backward, antiquated, outmoded and utterly unable to cope with an emergency. He was amazed at what had been done.

In 1918, the peak year of the First World War, Class I railroads handled 405 billion revenue ton-miles of freight, and 42 billion passenger-miles. In 1942,, with 34 per cent fewer locomotives, 25 per cent fewer freight cars, and 26 per cent fewer passenger cars, including Pullmans, they handled 638 billion ton-miles of freight, or an increase of 57 per cent, and 53 billion passenger-miles, an increase of 25 per cent over 1918. For the first nine months of 1943, freight business increased a further 16.7 per cent compared with the same period in 1942, and passenger business has further increased 77 per cent. Freight business is now nearly 75 per cent above 1918, and passenger business more than 100 per cent above 1918, in spite of a substantial decline in equipment.

In the First World War, each freight car, on an average, handled 518 ton-miles per car per day; in 1942 the figure was 975 ton-miles, and in the first nine months of 1943 it was 1,088. Each car is doing more than twice the work per day that it did in 1918.

Excessive Centralization Weakens the Periphery

In the First World War we were in the hands of the government with considerable political consequences. Inadequate planning, poor organization, and indiscriminate use of shipping priorities resulted in excessive accumulation of cars at terminals. Nothing is so depressing to men as to feel that their efforts are futile, that influences beyond their control are handicapping their best endeavors. The railroads came out of government control in 1920 with a personnel of low morale, poor physical condition, a high wags structure and insufficient revenues—all of this in the face of an inflation that ran its course in the next year and a half. We met our Pearl Harbor in the First World War.

A little later, after a car shortage in 1923, the railroads got together and organized for an improvement in facilities, equipment and performance. This was followed by a better organization among railroads through the formation of the Association of American Railroads to act as a co-ordinating agency, and the establishment of Shippers' Advisory Boards for closer co-operation between shippers and railroads. Good results came from these moves. During the remainder of the '20's, vast improvements in facilities and equipment were made, and no great trouble was experienced in those years. The depression in the '30's brought new problems. With diminishing traffic and revenues, the railroads had to become more efficient. In many cases it was not a question of dividends, but one of survival.

But Nobody Foresaw Exact Problem

So when the Second World War came, we were much better prepared than 25 years previously. Long before Pearl Harbor, the railroads had entered upon a program of getting ready for the transportation job that seemed likely to come—putting spare rolling stock and motive power into working order. Considerable new equipment was purchased following the outbreak of the war in Europe. Purchases had been light during the long depression because heavy outlays were not necessary, and could not have been financed if they had been.

The exact nature of the transportation demands made by this war could not have been foreseen. There were new problems, new emergencies. Among these were the handling of oil and petroleum products to the east coast when the tankers were taken out of service; the huge volume of troop movements; the increased passenger travel brought about by the rationing of gasoline; the assumption of intercoastal traffic diverted to the railroads by the elimination of intercoastal shipping. The railroads have successfully performed all of these emergency jobs.

What are some of the railroad improvements that have increased the efficiency of operations?—heavier rail, more use of stone for ballast, improved drainage, wider use of automatic signals, faster and more powerful locomotives with larger tenders, which reduce stops for water and fuel. The treatment of boiler water was in its infancy 25 years ago. It has now been developed so that locomotive boilers last four or five times as long without renewal as they used to, and without constant repair work.

In World War I, it was customary to operate locomo-

* Adapted from an address to the Chamber of Commerce of the State of New York on January 6.

tives over only one engine district (100 or 150 miles), and then turn them back to the original terminal. Now freight engines are moved continuously over three or four such engine districts before they are detached and turned. Passenger engines run 700 or 1,000 miles and more without being taken off.

Keeping Trains Out of Yards

In the previous war, except for a few manifest perishable trains, freight traffic was handled from one division terminal to another, with each yard, every 100 or 150 miles, cutting out the cars destined for that terminal, and adding more cars for the next terminal. This practice often detained a train in each yard from six to eight hours or more. In recent years, solid trains have been run on definite schedules from one end of a railroad to another, stopping only at division points and just long enough to change crews and to inspect trains and service locomotives. Engines and cabooses run through—only the crews change at these intermediate terminals. In place of taking five or more days to go from Chicago to New York, practically all traffic covers the distance by the third morning.

In the roadway maintenance department, trackmen ride to and from work on gasoline cars instead of on the old "Armstrong" hand cars. Heavy track work is done with machines rather than by hand tools. Ditching is almost entirely done by machine; rail is laid with derricks and cranes; ballast is cleaned by a gasoline-driven traveling screen device called a "mole"; ties are tamped with pneumatic tools; bolts are tightened by power wrenches. In the car repair yards, heavy parts are taken from the storehouse by traveling gasoline driven cranes, eliminating heavy manual lifting. In the heavy repair shops, cars move on a production line, after the manner of automobile assembly in a modern plant.

Cranes are used also in the locomotive shops. Specialized machinery has been installed for every operation where there is enough work to warrant it. A typical instance is a modern flue shop where the flues are never lifted by hand. The old boiler tubes are thoroughly cleaned inside and out, the ends are cut off, new ends are welded on, then the tubes are cut to length. Use of alloy steels has increased greatly in the past 25 years, bringing better designs and better materials, lengthening locomotive-miles between shoppings. Roller bearings on locomotives are having their effect on improved mileage per locomotive.

Trained Supervision Shows Its Worth

Signal systems of the present day expedite the operation of trains, and, where intensively applied, eliminate the need for train orders—on single track as well as multiple tracks. Trains are dispatched by telephone rather than by telegraph. Messages between important terminals are sent by teletype. A record of all car movements is sent by teletype to a central office, then printed on sheets in such a way that any office to which these sheets are air-mailed can accurately tell where a loaded car was on the preceding day. This information expedites the tracing of cars and gives current information regarding car locations, permitting shipments to be accelerated where desirable. In the accounting and car record offices, cards are punched and much of the accounting is done on electric accounting machines instead of by the hand methods.

Railroads have completed, or nearly so, their metamorphosis to mass transportation, and in this war they are making the most of the economics attendant upon that technique. Cars are being loaded to their capacity, thanks to a directive by Director Eastman of the Office of Defense Transportation, who has made such loading obligatory. Without the savings attendant upon this heightened use of available capacity, the war load could not have been handled. In addition to these improvements in the application of materials, there has been an accompanying betterment in methods and in training. Supervisory forces 25 years ago were largely left to their own devices; some men sought progress, but others were satisfied with what they already knew.

In recent years this old "laissez-faire" condition has been superseded by systematized "sure-fire" conference training. It is not universal even yet—but the war has added impetus by the activities of the Training Within Industry branch of the War Manpower Commission. These courses are known as J. I. T., Job Instructor Training, embracing the "sure-fire" method of teaching. Supervisors are trained to teach J. M. T., Job Methods Training, which shows them how to plan their work. These courses have been invaluable and are being received with intense enthusiasm wherever they are properly taught.

Co-operation Proves Superiority to Coercion

Thus, while the railroads did rather poorly during the First World War, partly due to antiquated methods and partly due to their operation by the government, they have greatly progressed since then. Current spectacular results have come in large measure from the use of improved appliances and methods—and from the fact that government has not hindered by attempts at management, but has helped by the non-coercive collaboration of Director Eastman of the Office of Defense Transportation, the Association of American Railroads, the Interstate Commerce Commission, and the armed services—further aided by the enthusiasm of railroad workers. Unlimited co-operation has been received from shippers, and railroads have helped each other more than they ever did before.

Just as there was apprehension at the start of the war that the railroads would break down under the heavy war load, so now there is fear that when peace comes the railroads will be at the mercy of competing forms of transportation. Note that railroad security prices drop whenever the market gets one of its "peace scares." In preparation for the postwar period, the railroads have wisely pursued a vigorous policy of debt reduction, thereby reducing fixed charges and increasing their working capital. This strengthening of credit will enable railroads to increase expenditures for additions and betterments, without which progress would cease.

Because of current shortages of men and materials, and increased use of their plant, the railroads have considerable deferred maintenance which the I. C. C. permits to be charged to operating expenses, but which the Bureau of Internal Revenue does not at present recognize as a deduction for tax purposes. We are hopeful that the pending tax bill in Congress will rectify this injustice.

Comprehensive Inquiry into Future Prospects

The entire postwar situation is being studied by a special research organization of the Association of American Railroads, and individually by most railroads. With intensified competition from highway transportation, air lines, waterways and pipelines, and with the loss of the present traffic arising entirely from the war and the reinauguration of coastal and intercoastal shipping, railroad revenues will be substantially lower than they now are.

For a time at least, railroad expenses will have the burden of increased wage rates conceded during the war and by increased prices of materials costs, of which the higher cost of coal is the most important.

When railroads were first built their function was the transportation of passengers and their entire revenue came from that source. Gradually the hauling of freight became more and more prominent. In 1920, which was the peak year of passenger travel prior to the present upsurge arising from temporary conditions, railroad passenger revenue was about 21 per cent of railroad gross income. This ratio had dropped to 10.4 per cent in 1939 but now in wartime it is up to about 13 per cent.

Withdrawal from "Retail" Transportation

In the '20's came the extension of good roads and the phenomenal growth of automobile traffic. Local passenger trains became unnecessary and such service has largely been discontinued. Buses perform a valuable service, because they go into the center of towns and give more convenient service for many short distances than a railroad possibly can. The railroad is not intrinsically an efficient medium for transportation of either passengers or freight on a small-quantity "retail" basis. It occupied this "retail" field only because of its superior speed in the day before a medium of superior economy and equal or greater effective speed for small-volume, short-distance hauls made it possible for the rail carriers to retire from the areas of transportation to which they have no economic claim—without injury to public convenience and with greater profit to themselves.

What about air travel? There will be more and more of it—long distance and rush travel particularly. But some people will always prefer railroads. After the wartime load of armed forces and their families have left us, and gasoline and tires and automobiles are again available, railroad passenger traffic may go back somewhere near its prewar levels. But remember that many people have had their first train ride these past two years and are pleased with the comfort and absence of dirt and noise in the air-conditioned cars. Furthermore, trains will continue to improve in the postwar period.

Cargo planes will probably carry an increased amount of mail and express. There are always factory breakdowns and other emergencies that seek the fastest available service. In the long run, industrial management always figures out ways of saving transportation charges on the goods it ships. New factories or branch plants are located primarily to minimize freight charges. Over the years, freight moves by the channel that produces the greatest economy, with due regard for dependability.

Where Railways Have No Rivals

During the war some traffic formerly handled by trucks has gone to the railroads on account of shortages of trucking facilities. It is reasonable to expect that the trend will be the other way after the war, and there is certain traffic which should be handled by truck. It is just as foolish for railroads to compete in rates for short-haul traffic in retail quantities as it would be to use a 20-ton truck to deliver small packages from Macy's store or to use a Fifth Avenue double-decker bus as a taxicab.

The railroads' futures lies in the field of mass transportation handling heavy commodities, in fully loaded cars, in heavy trains, long distances. Their job is mass transportation and no other inland transportation agency can even approach their economy in the realm of their true competence. There is a proper place for all forms of transportation, but none of them can compete with the railroads in providing low costs where traffic moves in quantity and over considerable distances.

The amount of revenue the railroads will receive in the future will rise and fall with the amount of production in the nation. In times of depression, railroad revenues will be down; if business is good, rail revenues will be correspondingly increased.

The average railroad charge per ton-mile in 1942 was 0.932 cents—less than one cent for hauling a ton of freight one mile. It was probably about the same for 1943 although the exact figures are not yet available.

The maintenance of this approximate scale of freight rates is of major interest to shippers and consumers everywhere. One of the ways in which this cost can be kept low is to continue to load cars to their full capacity. We hope to find some way to do this, even after wartime requirements are lifted. The achievement of utmost economy in transportation is as fully to the interest of producers and the public as to that of the railroads.

The railroads do not benefit from subsidies from the public purse. Their operations contribute to, but do not consume, taxes. There are bills pending in Congress calling for subsidies for air transportation, and for the development of airfields at government expense. Good roads are being continually built at public expense for the incidental benefit of truckers. Superhighways are worn out more by heavy commercial trucks than they are by passenger vehicles. The railroads are somewhat in the position of an old established business in a small town: The local Chamber of Commerce is not much interested in doing anything for the old firm, but will raise great funds of money and secure concessions for a new enterprise. Railroads seek no more than equitable treatment in the matter of taxes, regulation and subsidies. The public which must pay for the railroad services has as much at stake in fair play for the railroads as do the carriers themselves.

Why "Public Works" Do Not Increase Wealth

The railroads are temporarily under government control, and there are undoubtedly forces at work that would like to socialize them permanently, and all other industry as well. It is estimated that the federal government now owns one-fifth of the area of the United States, and has over 2,600 plants in which are invested over $15 billions. These huge wartime excursions of the government into the field of private industry represent a vast potential threat to free enterprise. Disposition to private enterprise of these government possessions is one of the great postwar problems.

There is no way to increase our useful national income other than through productive enterprise, created, developed and expanded by the venture capital of the people. Government expenditures cannot do this job, because the things the government provides with its "public works" expenditures are, none of them, things which the people want as much as they want the same money to spend for other things. If "public works" entailed benefits to the public in excess of their costs, they would promise sales at a profit to private enterprise. Private capital would be attracted to such investments; thus relieving the taxpayer of the expense. After the war, industry will need a "climate" where it can expand and attract venture capital. Tax laws should be reformed with that objective in view. Wartime government regulation and restrictions should be relaxed as quickly as possible with safety. If these things are done, I foresee an extended period of great industrial activity and large employment, without adding further to the great burden of taxes on the private citizen.

C. N. Montreal Terminal Has New Type of Interlocking

A total of 57 switches, 64 crossovers and 197 signals, on 9 road miles throughout 11 zones, are controlled from one central machine using a new form of code control

CONCURRENTLY with the development and construction of its Central station in Montreal, Que., the Canadian National made numerous track changes and additions throughout nine road miles and, as a part of this project, new interlocking facilities, including electric switch machines and searchlight signals, were installed throughout, a special feature being the central control of these facilities from one machine which is of a new and novel design.

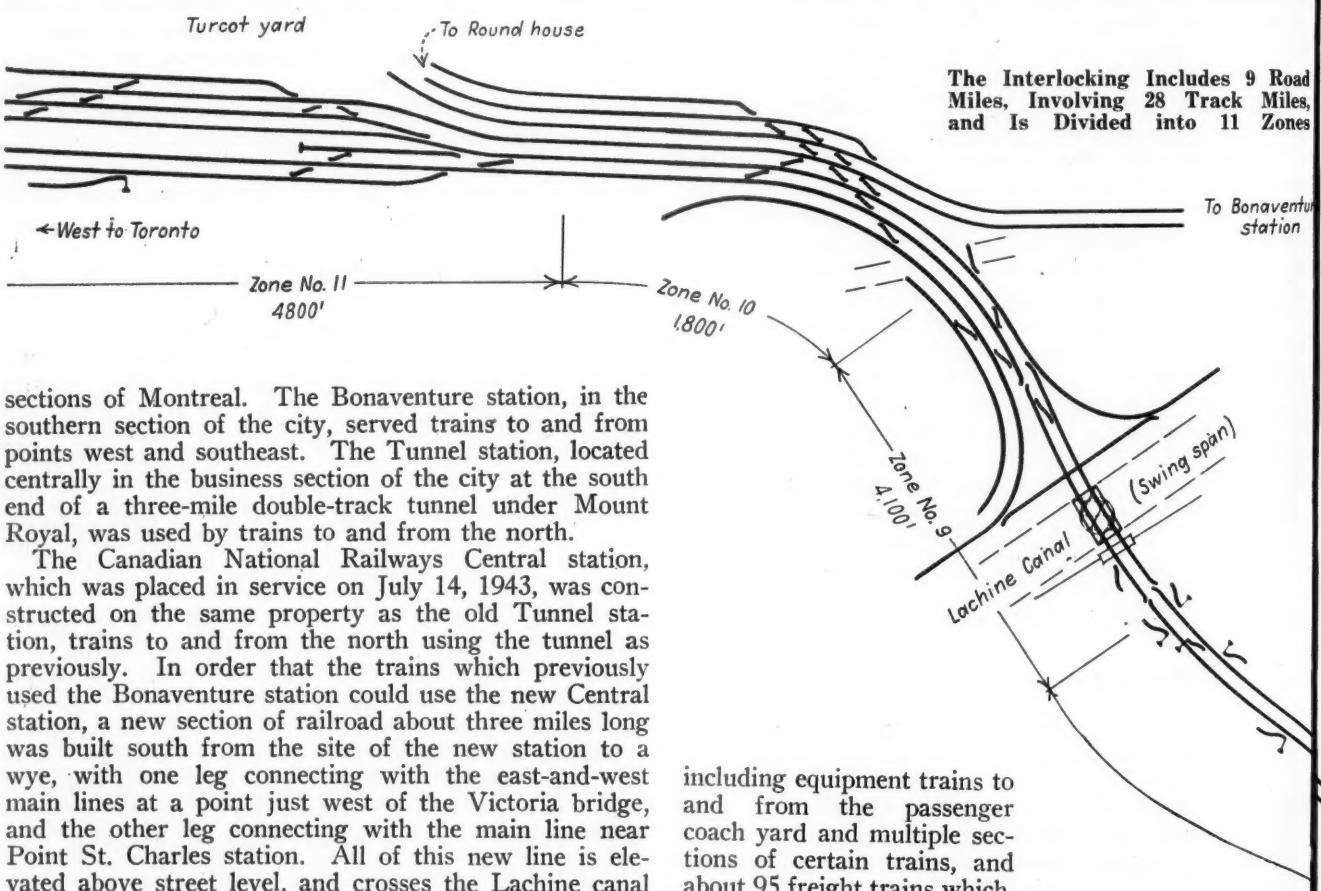
When the Canadian National Railways were formed in 1922 by the amalgamation of several railroads, two of these railroads had passenger stations in different sections of Montreal. The Bonaventure station, in the southern section of the city, served trains to and from points west and southeast. The Tunnel station, located centrally in the business section of the city at the south end of a three-mile double-track tunnel under Mount Royal, was used by trains to and from the north.

The Canadian National Railways Central station, which was placed in service on July 14, 1943, was constructed on the same property as the old Tunnel station, trains to and from the north using the tunnel as previously. In order that the trains which previously used the Bonaventure station could use the new Central station, a new section of railroad about three miles long was built south from the site of the new station to a wye, with one leg connecting with the east-and-west main lines at a point just west of the Victoria bridge, and the other leg connecting with the main line near Point St. Charles station. All of this new line is elevated above street level, and crosses the Lachine canal on a new double-track lift bridge. As a necessary part of the project, a new coach yard was constructed near the Point St. Charles shops. A new double-track connection to this yard extends across the old east-and-west main line just west of the west end of the Victoria bridge.

Electrical operation of trains was previously in service through the Mount Royal tunnel, and this same form of electrical propulsion was installed on the new connection from the Central station to the east-and-west line, including the passenger tracks between the Victoria bridge on the east and Turcot yard on the west. All train movements into and out of the new station are made with electric locomotives. Track layouts for changing from steam to electric locomotives and vice-versa are located at Turcot yard and at a point just west of Victoria bridge. The distance from Victoria bridge to the Central station is 2.3 miles, and from Turcot yard to the new station is 4.7 miles.

A daily average of about 140 passenger train movements are made into and out of the Central station, including equipment trains to and from the passenger coach yard and multiple sections of certain trains, and about 95 freight trains which, although not using the Central Station, comprise a major part of the traffic through the interlocker. Besides these, there are numerous movements connected with the changing of engines on inward and outward passenger trains, many light engine movements and the passenger and freight switching involving the main and station tracks.

Freight trains from the east and southeast enter Montreal via the Victoria bridge and then move to



The Interlocking Includes 9 Road Miles, Involving 28 Track Miles, and Is Divided into 11 Zones

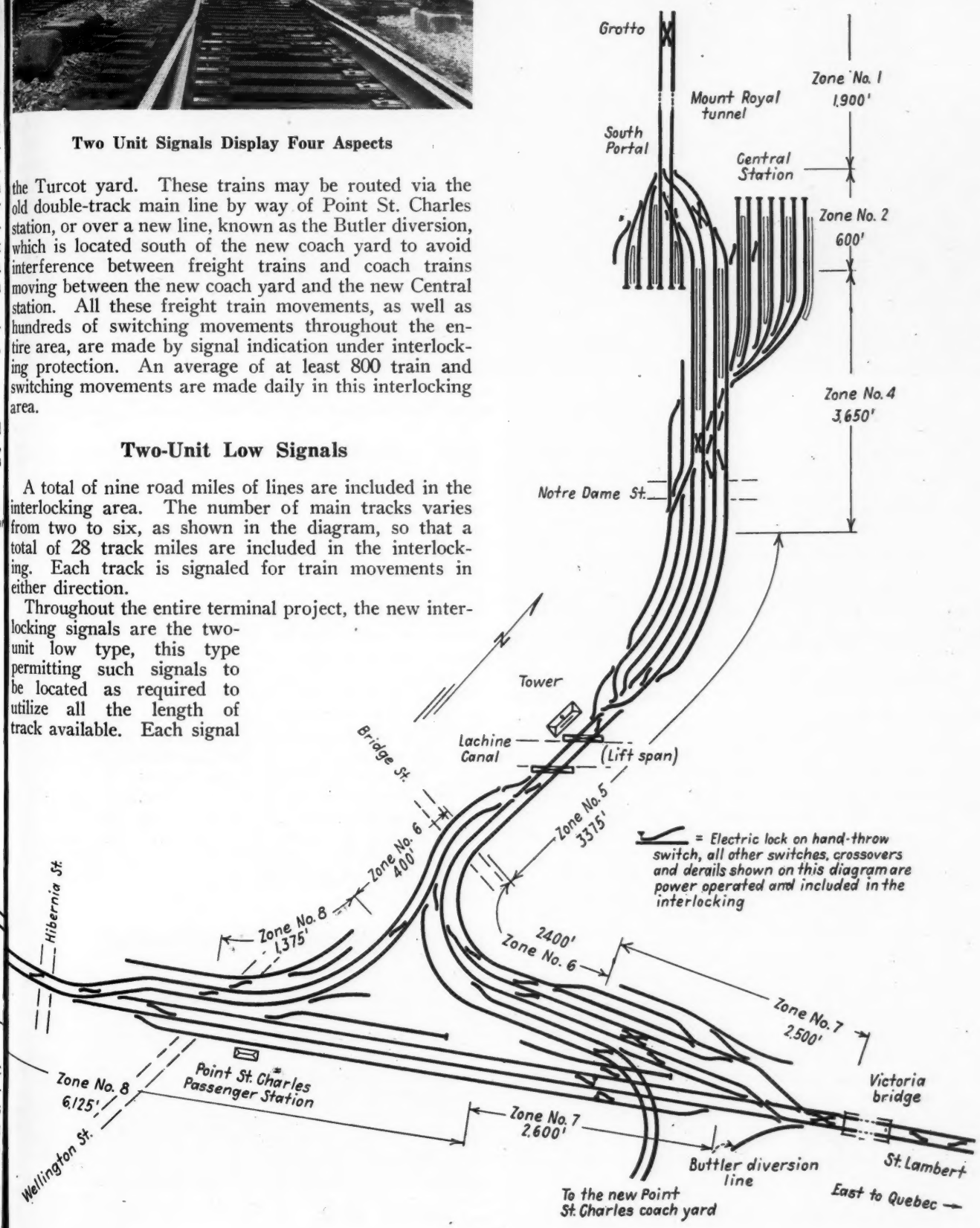
Two Unit Signals Display Four Aspects

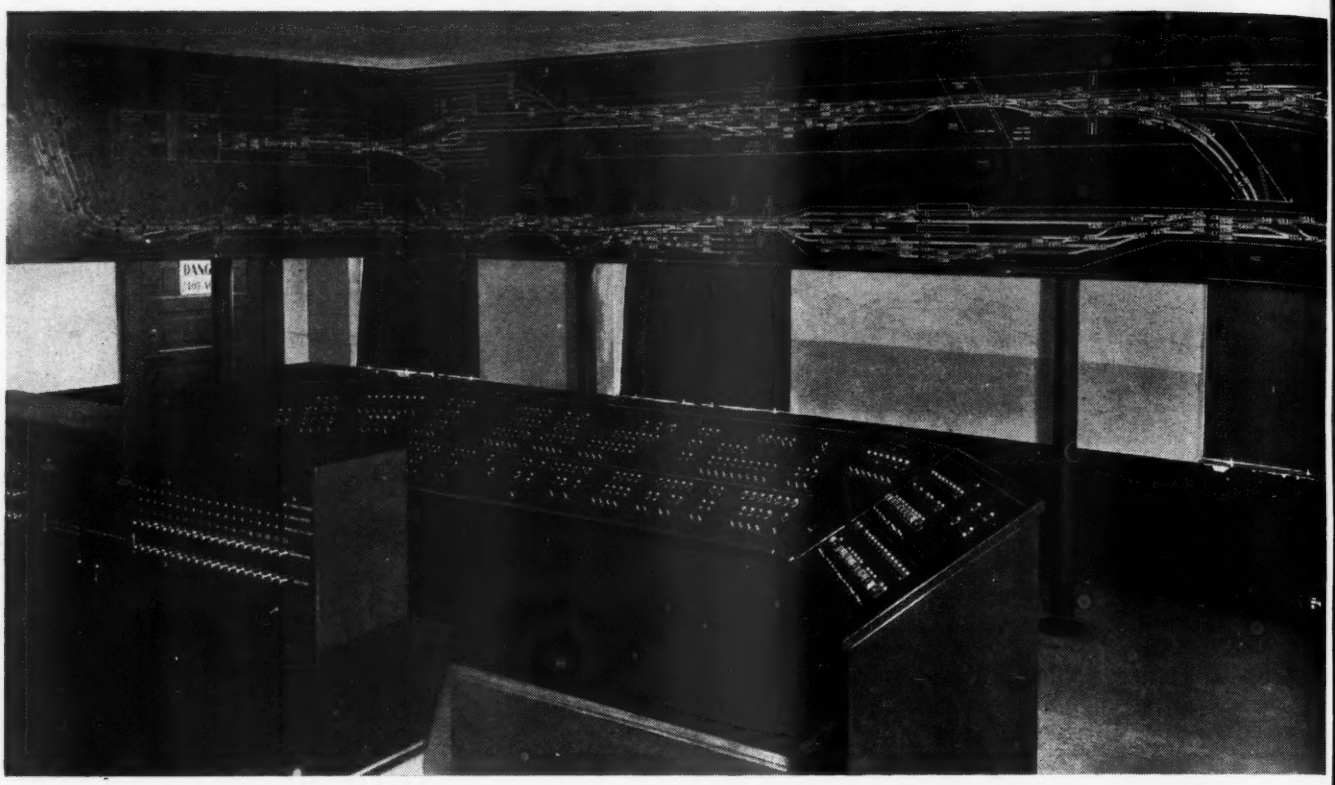
the Turcot yard. These trains may be routed via the old double-track main line by way of Point St. Charles station, or over a new line, known as the Butler diversion, which is located south of the new coach yard to avoid interference between freight trains and coach trains moving between the new coach yard and the new Central station. All these freight train movements, as well as hundreds of switching movements throughout the entire area, are made by signal indication under interlocking protection. An average of at least 800 train and switching movements are made daily in this interlocking area.

Two-Unit Low Signals

A total of nine road miles of lines are included in the interlocking area. The number of main tracks varies from two to six, as shown in the diagram, so that a total of 28 track miles are included in the interlocking. Each track is signaled for train movements in either direction.

Throughout the entire terminal project, the new interlocking signals are the two-unit low type, this type permitting such signals to be located as required to utilize all the length of track available. Each signal comprises two searchlight signal units, each capable of displaying red, yellow or green. Green-over-red is the "Clear" aspect, which indicates Proceed. Yellow-over-red is the "Approach" aspect, which indicates "proceed prepared to stop at next signal." Red-over-yellow is the "Restricting" aspect, which indicates "proceed at restricted speed". This is the call-on aspect, displayed when one or more of the track circuits is occupied. Red-over-red is the "Stop" aspect. Electric





The Train-Starting Control Panel Is on a Desk in Front of the New Machine, with the Track Model to the Rear

switch machines, rated at 110 volts d-c., are used at the interlocked switches. Main-line handthrow switches are equipped with electric locks which are controlled from the interlocking machine.

New Type of Interlocking Machine

The control machine for this entire interlocking is located in a tower on the west side of the track just north of the new lift bridge over the Lachine canal. The controls are of the all-relay type; i.e., the locking is accomplished by interconnections of circuits, so that there is no mechanical locking between levers and no electric lever locks.

The interlocking machine is different from any used previously. The levers and accompanying indication lamps are inserted in a steel panel 44 in. high which is mounted at an angle of 30 deg. The lower edge of the panel is 30 in. above the floor, so that the levers on the panel are all easily reached by a man standing at the machine. The total length of the machine panel is 12 ft. 6 in., the end sections being set at an angle.

The levers are of the miniature type and of a special design, as shown in a close-up view in one of the accompanying illustrations. The part of the lever which a leverman grasps between the thumb and forefinger is about ½ in. high and 1 in. long. In order to operate a lever, it must be pushed down about ⅛ in. against spring pressure, thus releasing a catch, after which the lever can be rotated on a vertical shaft through the face of the panel. A switch lever can be rotated 90 deg. from the normal to the reverse position or vice versa. A signal lever normally stands on center and can be rotated 45 deg. to the right or to the left to control corresponding signals. In order to control a signal to display the call-on, Restricting aspect, red-over-yellow, the signal lever must be positioned and a button on the panel below the lever must also be depressed.

When a signal lever is moved to an R or an L position, a steady white light appears above the lever, and this light continues to burn until the signal clears and an indication to that effect is transmitted to the control machine, at which time the lamp above the signal lever is extinguished, and a lamp is lighted in the symbol representing that signal on the illuminated track diagram.

The hand-throw main-line switches within the entire interlocking territory are equipped with electric locks, which are controlled by levers in the interlocking machine. The lamp above each electric lock lever is normally extinguished. When the lever is reversed, a steady-burning light appears above the lever if circumstances in the field are such that the lock can be released. These conditions are that the lever-controlled signals governing the switch must be at stop, their associated approach locking relays must be energized, and the track sections in the route which include the switch must not be occupied by a train moving toward the lock, except that after the track section in which the switch lock is located has been occupied for a pre-determined time, a release may be obtained automatically to permit the switch to be unlocked.

Illuminated Track Diagram

The illuminated track diagram is 4 ft. 6 in., high and 34 ft. in. long, and is mounted on pipe posts to bring the bottom of the model 5 ft. 9 in., above floor level and 3 ft. 10 in., to the rear of the interlocking control machine. At this location the track diagram as well as the indication lamps, are plainly visible to the men operating the machine. From the photographs shown herewith, it will be noted that one half the track diagram is on the upper half of the model board, and the other half is on the lower half. In a corresponding manner, the levers in each half of the panel of the interlocking machine correspond with the tracks on that half of the track model.

The diagram is provided with lamps to indicate track occupancy, which lamps are lighted when a train occupies the corresponding track section. As mentioned previously, when a signal clears, a lamp on the model board is lighted in the symbol representing that signal. Likewise, when an electric lock on a hand-throw switch is released, a lamp on the model board is lighted near the symbol representing the electric lock on the corresponding track switch.

Interlocking Divided into Eleven Zones

So far as the men in charge of the control machine are concerned, the interlocking on the entire 9 road miles is controlled as one large interlocker. From a signal engineering and construction standpoint, however, the interlocking is divided into eleven zones. At a central point in each zone, there is a concrete house known officially as a bungalow. Conventional direct-wire control circuits extend from each bungalow to the switch machines, signals and track circuit connections in that zone, the same as if there were a conventional type interlocking control machine in the bungalow. The novel feature of this extensive interlocking is that the entire eleven zones are controlled from one machine, which, as stated previously, is located in a tower near the new lift bridge.

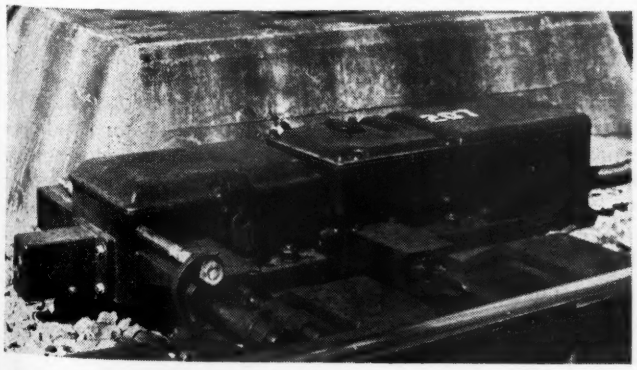
The control of so many switches, signals and electric locks over such an extensive area would, of course, require too many wires if conventional direct wire circuits were used. On the other hand, line code control, as ordinarily used in centralized traffic control, would not be entirely practicable for application to the control of such a large number of switches and signals. For these reasons the Type-S Form 508 polar code control system was applied.

In this system of interlocking, controls are transmitted from the control machine to each bungalow on three wires, and indications are transmitted from each bungalow to the control machine on three other wires, the two three-wire arrangements being entirely independent so that controls to, and indications from, a bungalow can be transmitted simultaneously.

Train-Starting System

The new signaling includes a train-starting indicator system by means of which the gateman in the passenger station, the train conductor on the platform, and the train director in the control tower, inform each other concerning the loading of a train before departure.

The train-starting system control panel is on the train director's desk, in front of the interlocking machine in the tower. On this panel, there are, in a vertical row from top to bottom, three indication lamps and two



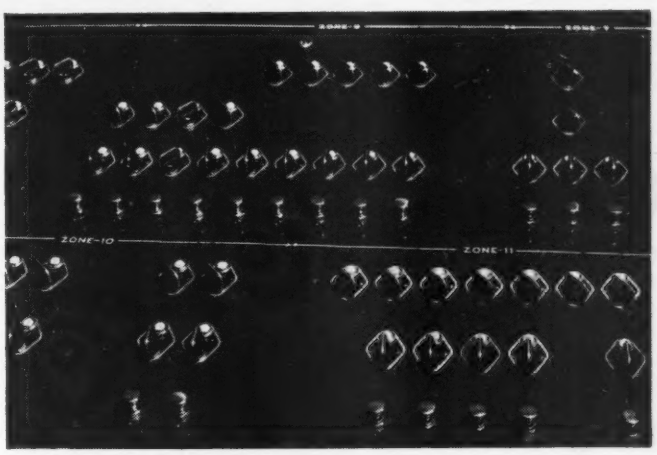
The Switches Are Operated by 110-Volt Machines

Table Listing the Various Types of Functions in the Different Zones

Zone	Single Switches	Cross-overs	Main line Derails	Switch Machines	Bridge Locks	Signals	Electric Locks on Hand-throw Switches
1	0	2	0	4	0	4	0
2	10	4	0	18	0	18	1
3	Train Starting System						
4	8	9	0	26	0	27	0
5	6	5	4	20	1	16	0
6	4	5	0	14	0	19	0
7	11	8	0	25	0	36	3
8	5	5	0	15	0	23	6
9	4	3	4	14	1	13	2
10	1	10	0	21	0	13	0
11	8	13	0	34	0	28	1
Total	57	64	8	191	2	197	13

control push buttons for each station track. On each train platform in the station are a platform-indication signal and a key switch. At each gate on the station level are a yellow lamp indicator and a push button.

When a train on a given track is ready to load passengers, the conductor operates a key circuit controller on the platform for the direction the train is to move. This causes a red light to be established on the proper signal on the platform and also causes a control to be transmitted to the tower to light the red (ready to load) lamp on the station-starting control panel. When the



Small Section of the New Interlocking Machine

towerman operates the acknowledgment button for that track, the red lamps on the station platform signal and on the towerman's cabinet are extinguished and yellow lamps are lighted at both of the locations and at the gateman's indicator. The yellow light directs the gateman to open the gate.

As the time approaches for the train to depart, the gateman closes the gate and allows time for passengers to descend the stairs and board the train. Then he presses his push-button, which extinguishes the yellow lamps on the gateman's indicator, on the platform indicator, and on the train director's desk, after which the green lamps on the platform indicator and on the train director's desk are lighted. The towerman then lines the route for the train and clears the signal to depart. The controls between the tower and station for this train-starting indicator system are accomplished by polar code similar to that already referred to.

This interlocking system was planned and installed under the jurisdiction of R. G. Gage, chief electrical engineer of the Canadian National, and under the direction of J. J. Ginty, superintendent signals. The plans and principlal items of the interlocking equipment were furnished by the Union Switch & Signal Company.

Design and Construction Methods

feature long concrete trestle

General View of a Section of the Long Concrete Trestle Under Construction, Showing the Deck Forms in Various Stages of Erection

Factors entering into foundations and superstructure made the basis of detailed studies to insure adaptability, permanence, minimum maintenance and over-all economy

ONE of the longest and most unusual bridges of its kind ever to be built in this country—unusual in a number of its features of design, and unusual in many of its details of construction—is soon to be completed and put in service. This structure, which will carry a single-track line across a potential overflow area in a flood control project, is a ballast-deck, reinforced concrete trestle in two sections, one 18,751 ft. or approximately 3½ miles in length, and the other, separated by about 2,500 ft. of embankment, 312 ft. long. Both sections are on a continuous tangent and on a continuous level grade about 25 ft. above the average surrounding ground level.

The main section of the structure consists of a continuous series of 600 reinforced concrete T-beam simple spans supported on open-type reinforced concrete piers spaced 31 ft. 3 in. center-to-center. All piers rest on concrete footings, which, in turn, are supported on either timber or steel-encased concrete piles. The flanking section of trestle is of similar design and construction, with 10 spans, and in the description which follows will be considered as a part of the main structure.

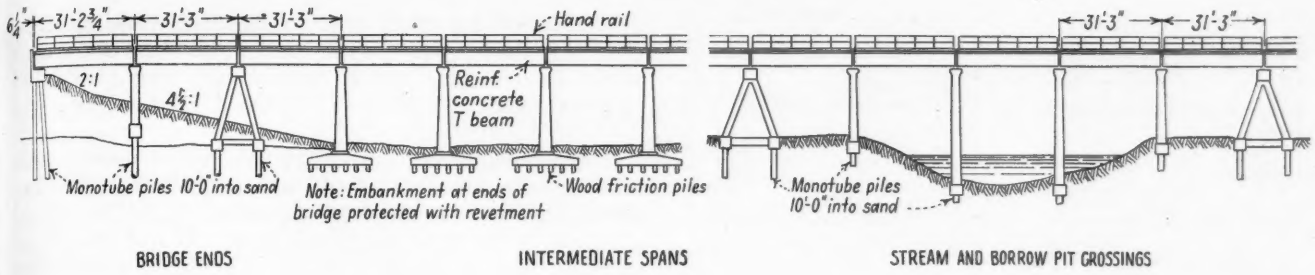
Factors Influencing Design

Many important considerations entered into the design adopted. First was the general character of the terrain to be traversed—low and generally level—and the character of the soil, which is a loam and silty clay varying in uniformity and water content and interspersed by many sand pockets to an average depth of approximately 85 ft. before reaching a sound bed of sand of undetermined thickness. Second among the considerations was a specification set up by the government, which has financed the project throughout, which called for first-class, permanent-type construction, of a design affording an opening two feet above calculated high water and minimum obstruction to debris. Third among the considerations was economy of construction through uniformity of design, to permit the use of mass production methods to the greatest practicable extent, with a minimum outlay of construction equipment. Added to these considerations was that of fire-resistant construction, which was recognized as of special importance in view of the wooded character of the area traversed, and the matter of maintenance, which will be assumed entirely by the railway company involved.

Since construction was started in June, 1941, the wartime restrictions of the last two years on many construction materials did not play a part in the choice of design. However, it is significant that the design selected has proved conservative in its demands for the materials that have become increasingly critical, which was a factor in making it possible to carry the work to completion.

The deck structure of the trestle, as shown in one of the accompanying sketches, is of T-beam construction, each panel being uniform in section about its longitudinal center line, except for a concrete walkway along one side. Poured monolithic, the deck slab, pitched for drainage to two center drainage holes, has a minimum thickness of 11 in., and two longitudinal beam sections, 3 ft. deep, one carrying the load of each track rail. A ballast curb on one side and the walkway on the other confine the track ballast to a width of 11 ft.

The typical bents of the structure are reinforced concrete A-frames placed at right angles to the longitudinal center line of the deck. In the main structure, these are



Elevations of the Trestle, Showing Typical Features at the Ends, at the Intermediate Spans, and at Stream and Borrow Pit Crossings

supplemented by two open-type pile abutments and 10 anchor bents, these latter bents consisting of double A-frames set parallel to the longitudinal center line of the structure. In the shorter length of trestle, there are two abutments and two anchor bents.

Timber and Monotube Piles

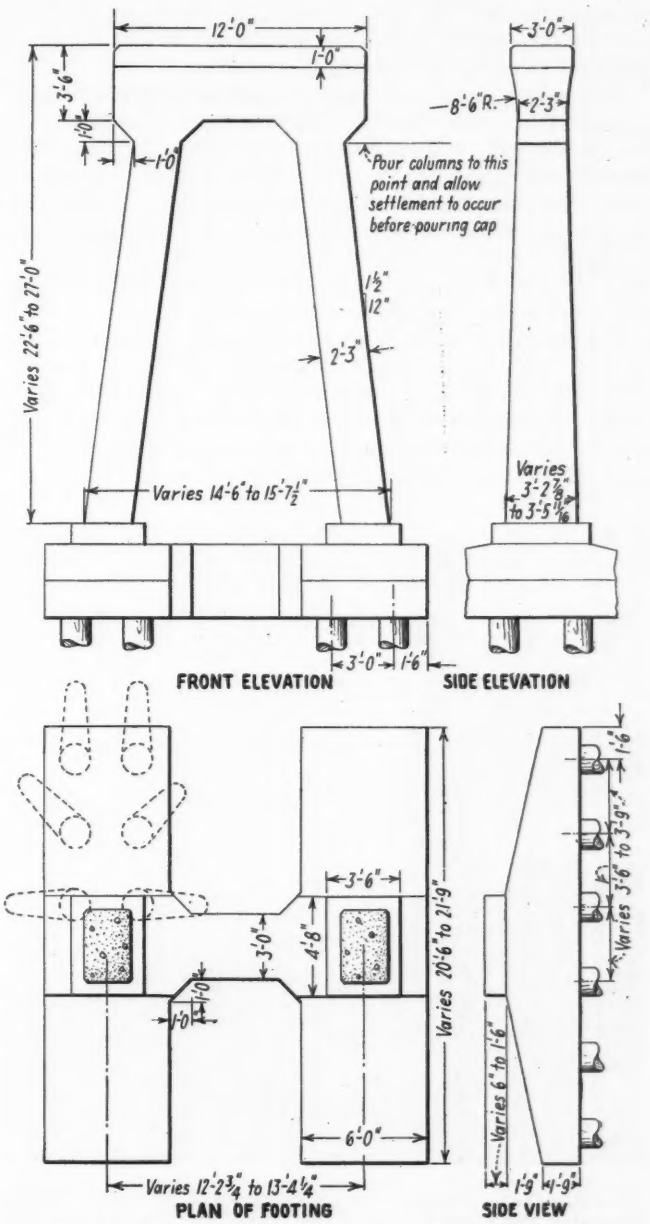
Most of the typical or intermediate bents are carried on reinforced concrete footings, which, in turn, are supported on untreated yellow pine piles. The footings in each case consist of two large slabs, from 20 ft. 6 in. to 21 ft. 9 in. in length, by 6 ft. wide, one under each leg, which are tied together transversely by a reinforced concrete strut to resist lateral forces which might tend to spread them. To minimize the number of variations in the heights of bents, and thereby facilitate form and construction work generally, adjustments in their heights were effected largely by providing concrete column bases on top of the standard footings, these base blocks ranging from 6 in. to 18 in. in height. In only a few cases was it necessary to extend the A-frame legs, as well as to provide column bases to compensate for increased height.

All anchor bents in the structure, including a total of 12, as well as the typical intermediate bents immediately adjacent to the anchor bents, and a few intermediate bents where the line crosses small streams or borrow pits, are supported on Monotube piles through single concrete headers 4 ft. square in vertical section. These piles, which are tapered, fluted steel shells filled with poured-in-place concrete, also support all abutments, being employed wherever ground or design conditions dictated the desirability of carrying the load down to a firm bearing on the low-lying sand strata.

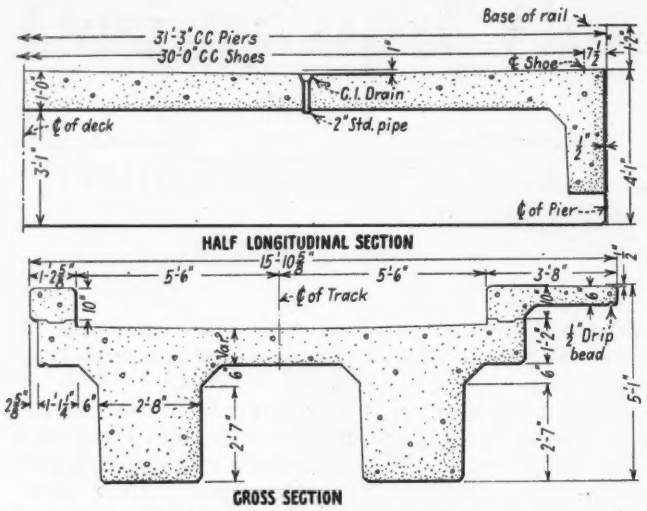
Supporting the typical intermediate bents where timber piles are employed, the piling arrangement provides 12 piles under each half of the footing, in two rows of 6 piles each, making a total of 24 piles to the bent. Under each half of each footing, the 12 piles are driven on batters of ½ in. and ¾ in. to the foot, in a total of eight directions from the center of the slab in order to spread the load over a greater area and to resist lateral and longitudinal forces. This is an important factor in the foundation design, because the superstructure design provides fixed slab-supporting shoes over these bents, requiring that they resist all longitudinal thrust as well as lateral forces. The timber piles employed ranged from 50 to 60 ft. in length and depend entirely upon skin friction for their carrying capacity.

Beneath those typical bents where Monotube piles are employed, there are a total of four piles each, the outside piles being battered outward ½ in. to the foot. Beneath the anchor bents, four piles support each of the twin bents as in the case of the typical intermediate bents on Monotube piles, the tops of all of these piles being tied together by means of concrete caps and concrete cross struts.

Each of the abutments is supported on two rows of four Monotube piles, the front row of piles being on a batter of 1½ in. to the foot to resist pressure from the adjoining embankment. Here, the piles extend above ground to concrete bridge seats, the fill being allowed to flow through them on a paved slope of 2 to 1, changing to a slope of 4½ to 1 and extending to the foot of the third adjacent bent. All of the Monotube piles, which



Details of the Intermediate Bents and Footings on Timber Friction Piles, Showing Range of Variations in Dimensions



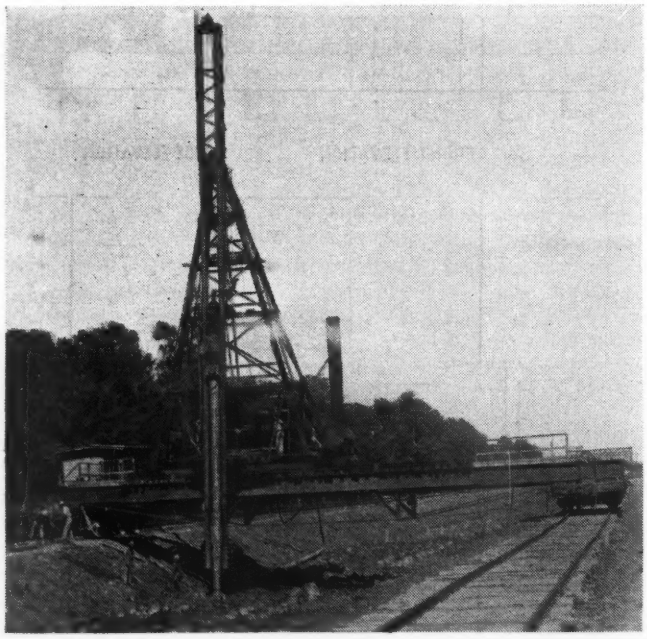
Half Longitudinal Section and Cross Section of the Concrete Deck Spans

are of 7-gage metal, are 18 in. in diameter at the butt and have a taper of 1 in 7. Their length averages approximately 80 ft., which was necessary to meet a requirement that they extend at least 10 ft. into the low-lying supporting bed of sand.

The selection of the types of piles and pile arrangements to be employed in the structure was based on one of the most exhaustive series of pile tests ever conducted, and involves not only a wide range of types of piles, but their load-carrying capacity both singly and in groups under the ground conditions that prevailed. A detailed analysis of these tests was published in Bulletin No. 433 of the American Railway Engineering Association for September-October 1942.

The trestle as a whole was designed for Cooper's E-60 loading, with longitudinal and lateral stresses in accordance with A. R. E. A. specifications. A 3,000-lb. concrete, involving a 1:2:3¼ mix, requiring six sacks of cement per cubic yard and 5½ gal. of water per sack of cement, was used throughout the structure. Structural grade reinforcing steel, with an assumed working stress of 18,000 lb. per sq. in., was used in all slabs and bents, while intermediate grade reinforcing steel, with an assumed working stress of 20,000 lb. per sq. in., was used in all footings.

The principal materials required in the construction of the trestle included 736,640 lin. ft. of untreated timber piles; 19,400 lin. ft. of Monotube piles; 32,790 cu. yd. of concrete in the deck slabs and bents; 17,615 cu. yd. of concrete in the footings; 10,250,500 lb. of reinforcing steel; and 1,139,000 lb. of steel in the fixed and rocker bearing shoes carrying the spans.



All Piles Were Driven from an Improvised Moveable Bridge Spanning the Center Line of the Structure, Which Consisted of Four Deck Plate Girders 82 Ft. Long and Spaced 6 Ft. Center to Center

Mass Production Methods Employed

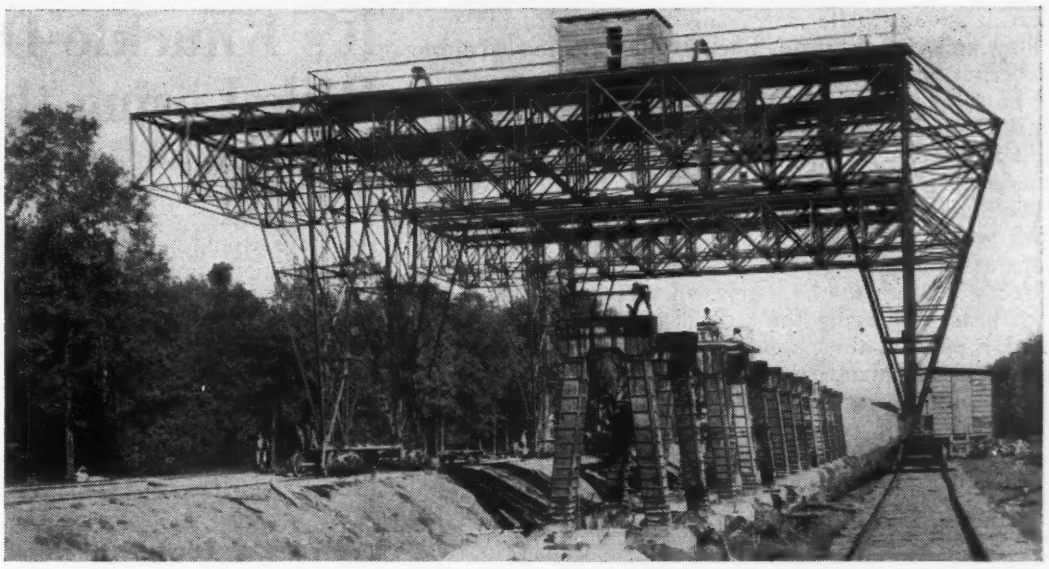
Largely of uniform design, it was immediately evident to the building contractor that the structure lent itself readily to assembly-line production methods, with the work progressing in successive stages in one direction and each successive stage following the preceding one as rapidly as conditions would permit. This plan of construction was adopted, and the equally effective decision was made to handle all materials possible—piles, forms, reinforcing and concrete—from overhead, self-propelled traveling bridges or cranes, spanning the width of the construction area and traveling on standard gage railway tracks throughout the full length of the trestle.

The first step in the construction, after clearing and grubbing, was the excavation of a continuous trench along the center line of the structure, to a depth level with the bottoms of the footings and wide enough to permit the placing of all side forms. This work was done with a caterpillar-mounted dragline with a 2-cu. yd. bucket, which cast the material excavated to both sides to form continuous parallel embankments in these locations—these embankments serving both to hold back surface water and to carry the construction tracks. Three construction tracks were built, one on the south side and two on the north, the tracks adjacent to the trench, 75 ft. center-to-center, being used exclusively for the operation of the construction bridges and cranes, and the outside track on the north side, with temporary passing sidings as required, being used for the handling of materials. During construction, the trench, with its bottom within a few feet of ground water level, was kept dry by a series of dams and by pumping.

Material Handling Equipment

All construction work proceeded from east to west, the trench excavation being followed successively by the driving of the foundation piles and then the pouring of the footings, concrete bents and deck slabs. All piles were driven from an improvised bridge spanning the trench, consisting of four deck plate girders 82 ft. long and spaced 6 ft. center-to-center. These girders, framed together and supported on self-propelled flat cars at their ends to give them portability along the work, carried a steel tower and swinging leads of sufficient height to hold the longest piles. Moving progressively forward, this rig, employing a 50-C Vulcan hammer striking 120 blows per minute, drove the piles at a rate reaching 135 in eight hours during the peak of the work.

Following cut-off of the piles and further hand shovel excavation for the footings as necessary, forms and reinforcing were placed and the concrete of the footings was poured. Subsequently, the trestle bents were constructed, and then the deck slabs. To carry out all of this work, the contractor employed two large gantry cranes, each consisting of four overhead steel trusses,



Two Large Gantry Cranes Were Employed to Place Forms, Reinforcing and Concrete Throughout on a Highly Efficient Progressive Basis

in pairs, supported on steel towers, which on each side were mounted on two self-propelled car trucks. These cranes, which overhung the material track at their north ends, and which were each equipped with a cantilever beam extending out to the rear over the center line of the work, had clearance well above the top elevation of the finished trestle and were each equipped with seven lifting hooks, all of which could be operated at the same time.

Forms and Concreting Methods

Taking advantage of the duplication of design throughout the structure, steel forms were employed extensively for the concrete work, wood forms being used only where special features required deviation from normal design, which was generally about the column footings and anchor bents. Thus, the steel forms were used over and over as the work progressed, the work being so scheduled that 7 sets of footing forms, 14 sets of column and cap forms, and 28 sets of deck slab forms were sufficient for the progressive operations on the entire structure. No forms were stripped until the concrete had attained a strength of 3,000 lb. per sq. in., and following stripping, the concrete of the footings, bents and slabs was kept moist continuously for seven days by suitable arrangements of water sprays, the water being pumped from pools of ground water in the construction trench.

The contractor set up a complete material yard, work shop and concrete batching plant at the east end of the job to supply all construction operations with materials. Reinforcing steel for the footings was sent out loose for assembly at site, but all other reinforcing, including that for both bents and slabs, was assembled into complete units on flat cars at the material yard, the different units being moved out over the material supply track and lifted into place by the gantry cranes.

All concrete for the structure was batched at the material yard, the batching facilities including a three-compartment elevated bin providing capacity for 30 cu. yd. of sand, 45 cu. yd. of gravel and 175 bbl. of cement. Four steel-frame cars were employed to convey the batched materials forward, each of these having 15 compartments, and each of the compartments being of sufficient size to produce 1 cu. yd. of concrete.

Each of the batch cars was equipped with a belt conveyor extending longitudinally beneath openings in the bottoms of the separate compartments, for unloading the cement and aggregates at the mixer, directly at the site of pouring. Carried forward by the conveyor, the correct amount of material for each batch was charged directly into the loading skip of the concrete mixer. Where two batch cars were operated together, which was the usual practice, unloading while the other two cars were being filled, the conveyor arrangement of the rear car was such that it discharged onto the conveyor of the forward car, which, in turn, carried the materials forward to the mixer.

Water for the concrete mix was pumped from pools in the construction trench and was regulated carefully. The mixing of each batch continued for 1½ minutes after all materials were in the mixing drum, this being controlled by a time lock.

The concrete was transported to the forms by means of roller gate buckets of 1 cu. yd. capacity, one of these being hoisted into dumping position by one of the hooks of one of the gantry cranes while a second was being filled at the mixer. Thus, the concrete placement, once started in a unit of the structure, was continued without interruption until that unit was completed—the total volume of concrete placed in a day ranging from 200 to 250 cu. yd.

Under a specification limiting the fall of the concrete to a maximum of 30 in. concrete was placed in the legs of the bents by a trimmie pipe extending down from a platform hopper suspended over each bent. Furthermore, each cu.-yd. batch of concrete was divided equally between the two legs of a bent, and immediately following the placement of the fresh concrete, it was vibrated by an internal, air-operated vibrator plunged deep into the mass.

Supporting and Stripping Forms

The top member of each concrete bent was poured in a separate operation after allowing an hour for the consolidation of the concrete in the bent legs. All anchor bolts for the span bearing shoes were placed during this operation, and subsequently the span bearing seats were bush hammered and rubbed down with a carborundum stone.

One of the most interesting phases of the form and concrete work was that employed in the deck construction. Here, the forms were complete units—the T-beam slabs, the ballast curb and the sidewalk—and were each set as a unit by the gantry cranes, directly over the span

bearing shoes. Alternate spans were constructed first, following which the forms were stripped and moved ahead to permit the pouring of the intermediate spans.

To support the forms during pouring and setting, and at the same time permit minute adjustment of their level and alinement, a rather unique supporting arrangement was devised by the contractor. This included two specially hung 18-in. I-beams reinforced by lengths of 90-lb. rail, which were suspended longitudinally between the caps of adjacent bents on opposite sides of the structure, directly beneath the two stems of the slab form. These two beams, carrying the weight of the form, were, in turn, supported at each end by means of an I-beam lever arm that was pivoted on a hinged bolster, set off-center on top of and near the end of the cap. The inner end of this lever beam, which had a ratio of one to five to the outer end, was fastened to the form-supporting I-beam by means of a pin-connected steel strap, which just cleared the inner face of the bent cap. The outer end of the lever beam, on the other hand, was held down by means of a cable tie, equipped with a turnbuckle, which was anchored to a steel loop embedded in the footing concrete directly beneath.

With this construction at each of the ends of the form-supporting beams, the elevation of the slab form could be adjusted minutely at each corner to bring it to true level. Minor final lateral adjustments of the form were made by cable ties equipped with turnbuckles, inside the area of the form itself, connecting the form and the bearing shoes.

Pouring the Spans

When the concrete in alternate spans over a length of the trestle had set up, the forms were stripped from it and were moved into position for the pouring of the intermediate spans. In pouring these spans, the concrete was placed directly against one-half inch of cork-board expansion joint filler set up against the ends of the spans already in place.

To strip a form, two 24-in. I-beams, supported by one of the gantries, were extended transversely beneath it. With the form resting on these beams, the short end sections of the form were unbolted and removed, which allowed the main body of the form to be lowered to the ground between the bents, where it could be rehandled for use in constructing another span ahead.

In addition to the ½-in. cork filler between adjacent deck spans, the joint above the filler material was flashed with copper embedded in the concrete, and above the flashing, the opening was filled with melted raw rubber. As waterproofing, the top surface of the deck slabs, within the ballast trough area, was given two spray coatings of asphalt clay emulsion.

In a final operation, the track is being built across the trestle on 8-in. of crushed stone ballast, employing new 90-lb. rail, fully anchored with anticreepers and supported on treated crossties equipped with tie plates.

Supplementing the construction of the two sections of trestle as described, the work involved a considerable line change and approach grading, this latter work requiring the handling of approximately 1,000,000 cu. yd. of material. In all of this work, embankments were built up in layers and rolled, careful attention being given to the rolling operation and to the moisture content of the filling material to secure maximum compaction.

The cost of the entire project, which has been financed by the Federal government, has amounted to approximately $2,680,000. It is expected that the project will be completed and put in service late this year.

It's Knuckle Down or Risk Losing the Ball

GRAVE concern over the railroads' manpower situation; the threat of a let-up in promotion of car-efficiency; and confidence that Army control of the roads would be temporary were dominant themes at the twentieth annual meeting of the Atlantic States Shippers Advisory Board in Philadelphia, Pa., on January 12 and 13. In connection with the general sessions and committee meetings of the board, there was a luncheon meeting on January 13, sponsored by the Chamber of Commerce and Board of Trade and the Traffic Club of Philadelphia, as well as two radio broadcasts on January 12, one over the Mutual system and the other over Philadelphia's station WFIL.

Wage Rates Big Factor in Labor Shortage

In reporting to the general session on the activities of the railroad contact committee, R. W. Brown, president of the Lehigh Valley, discussed the manpower shortage at some length. While it is the result of several conditions, he said—of which the most obvious is perhaps the drain of draft board calls—the fact cannot be ignored that the railroads have had an unsettled wage problem hanging over them for 15 months. Without expressing any opinion as to the wage settlements recently arranged or still in progress, the speaker did remark without qualification that the railroads will have a shortage of men as long as they pay from 15 to 25 cents per hour less than industries beside their tracks.

Even after increases now being effected show up in pay envelopes, mechanics working for the roads will be getting smaller wages, in many cases, than laborers in industry, said Mr. Brown, and the railroads' manpower shortage will continue as long as this disparity exists.

He went on to say, however, that he expects the acute shortage to be eased in a few months. To illustrate how serious it has been in recent weeks in the board's territory, he revealed that on some divisions of some roads absenteeism among train crews had run 30 or 35 per cent. This condition, seriously aggravating the labor shortage already existent, was, he explained, due to illness, and checks made by railroad physicians had indicated that the reported illnesses were real, thus disposing of the suspicion that had been expressed that the impasse over wage increases might have had some effect on the regularity with which the men reported for work.

Hard Work Brings on Illness

That train service employees might be unusually susceptible to illness was to be expected, he pointed out, because of the conditions under which they had been working in recent months. Many of them, he declared, had been regularly reporting for work as soon as their eight-hour rest period was completed for as much as three months at a time, and had been working under such conditions continuously through the week and through the month.

Mr. Brown remarked that the average turn-around time of freight cars had been lowered in the last 6 months by about 1.2 days. Giving shippers credit for a large part in this achievement, he remarked that it was in their own interest to continue to load and unload promptly

and to clean unloaded cars thoroughly, since it was the shipper who suffered most from car delays.

The speakers at the luncheon meeting were Henry F. McCarthy, director of the Division of Traffic Movement of the Office of Defense Transportation, and Lucius D. Tompkins, deputy rubber director of the War Production Board. Mr. McCarthy also participated in the Mutual radio program, as did Mr. Brown and the president of the National Association of Shippers Advisory Boards, George H. Shafer, who also addressed the general session briefly.

At the morning session on January 13, the Atlantic States board's officers were all re-elected for another year. They are: General chairman, C. H. Vayo, general traffic manager of the Eastman Kodak Co.; first alternate general chairman, C. J. Fagg, president of the Newark Central Warehouse Co.; second alternate general chairman, R. C. Huntington, secretary of Casey Jones, Inc.; general secretary, C. R. Seal, traffic director of the Baltimore Association of Commerce; and secretary, F. J. Murphy, with offices at the board's headquarters.

The burden of Mr. McCarthy's remarks was that the transportation industry has no reserve of men or facilities left to throw into a breach to meet threats to its record of success that may develop at any time from severe weather or unpredictable military demands. The industry—both carriers and shippers—at the moment, he said, is "skating beautifully and gracefully and with extreme speed—on very, very thin ice." Results from efforts to curtail the ton-mile traffic load have been disappointing, he warned, and he called for further co-operation from shippers in bringing about changes in industry's "shipping patterns," in order to reduce the demand for transportation to a point where there will be a safe reserve of capacity to tide transportation over the war period.

Car-Wastage Is Increasing

Scattered, but increasing, cases of "careless, car-day-wasting, routing practices" are evidence, said Mr. McCarthy, of relaxation in what should be the unrelenting drive for the maximum in transportation conservation. Growing requests for permits for non-compliance with O. D. T. general orders also suggest relaxation of effort, he added—a trend that not only must be stopped, but even reversed, lest the O. D. T. and the Interstate Commerce Commission be forced "to intrude into a field that could be completely occupied by resourceful and considerate shippers." For final success in meeting wartime demands on transportation, two jobs must be carried on and completed, the speaker declared—"intensification of the efficiency programs" and "a furtherance of resourceful conservation activity"—and both fields of work must include passenger as well as freight traffic.

In connection with the passenger traffic situation, Mr. McCarthy called the attention of the 600 or more shippers and business men and railway officers in his audience to two problems which he said they could do much to solve, by "discouraging conventions and convention travel," and by retarding the "growing and undesirable practice of advance block reservations to protect against conjectural travel" of industrial executives.

The forecast of commodity shipments in Atlantic States board territory for the first quarter of 1944, as presented at the meeting, indicated an over-all estimated increase of 4.1 per cent in the number of carloads; as compared with the same period last year. It was pointed out that the actual loadings in the first quarter of 1943 had proved to be 1.3 per cent under the board's estimate. In the radio round-table discussion, in which A. R. Beatty, a manager of the Public Relations Department of the Association of American Railroads, acted as moderator, Mr. McCarthy referred to the over-all prospect for more freight and passenger traffic in 1944. An expected 6 per cent increase in industrial production will result in more manufactures and minerals to be hauled, he pointed out, while all signs point to greater agricultural production. Though some decline in construction activity is expected, it is "almost certain" that highway vehicles will be unable to handle any of the increase, so that a heavier net burden will be put upon the railways. "The end of the war with Germany, whenever it comes," he said, "will simply mean that there will be more freight to be moved with which to fight Japan and to help rehabilitate the victims of aggression."

Predicts Busy Railroads in Post-War Era

Mr. Shafer, in the same broadcast, expressed his confidence that the railroads, "with additional equipment, sufficient materials and manpower, and increased efficiency," will move the added traffic anticipated. Turning to the post-war prospect, he declared that, "as in the past, the bulk of American commerce in the future is going to move by rail." This fact is basic, he said, because "there can be no mass production without mass transportation. And mass transportation in America is transportation in trains on tracks." He went on to suggest that public policy after the war might well result in "an integrated system of transportation operated co-operatively." Under such conditions, he explained, the railroads should be permitted to become general transportation companies, so that traffic might be moved by the most economical, convenient, and expeditious means, whether it be rail, highway, water, or air, under the circumstances controlling the individual shipment.

In a short talk at the afternoon general session Mr. Shafer alluded to Army control of the railroads, which, he said, had been a subject of great apprehension on the part of shippers. While acknowledging that shipper co-operation in attaining greater transportation efficiency had been based to a great extent on the thought that thereby government operation could be avoided, he declared that the railroads had been delivered into good hands. He assured his audience of his conviction that the Army had no desire to operate the roads, and that it was sincere in its wish to give up the job as soon as possible, so that "our colonels" can again be in civilian clothes. In the Mutual radio program Mr. Brown referred to the same topic. The Lehigh Valley president remarked at that time that Army control had had no effect that he could see on railway operation. The trains were being run in the same way by the same people, he pointed out, and the Army had found it unnecessary to intervene in any way in the regular conduct of the roads' affairs.

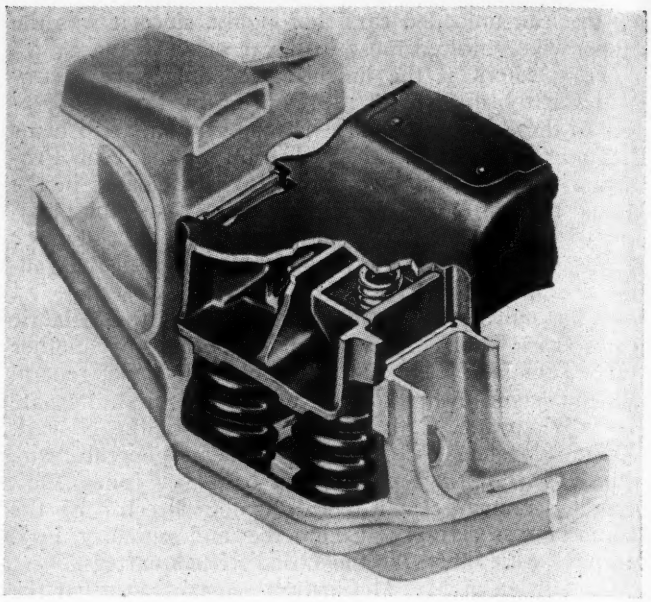
The Greatest Test in 1944

Subscribing to the idea that "the mainstay of intercity freight transportation in this country is still our railroad system," Mr. Tompkins discussed the relationship of the rubber situation to the railways' business, pointing out how co-operation was required to keep motor transportation moving in spite of rubber shortages and other difficulties, because, as he put it, a major breakdown in motor transport would throw an increased load on the short-haul facilities of the railroads that "might well lead to a creeping paralysis of terminal congestion."

Caleb R. Megee, manager of the open car section of the A. A. R. Car Service Division, discussed the car

supply situation at the afternoon general session of the board. After reviewing the accomplishments of 1943 and the prospects for obtaining new equipment during 1944, he reminded his hearers that the transportation requirements of this year will be the railroads' greatest test. Refrigerator equipment will be exceedingly tight, he explained, because a prospective record crop of perishables will have to be moved from Florida while there is still an abnormally heavy potato movement from Maine and the Northwest. The proposal to mine anthracite seven days per week is causing serious concern, too, he explained, because it has been all the railroads have been able to do to keep up with the production on a six-day basis.

Discussions of means for increasing freight car efficiency occupied a good part of the morning session. Among reports describing successful methods in this direction were those of W. F. Murphy, Utica, N. Y., freight agent of the Delaware, Lackawanna & Western; H. F. Suiter, traffic manager of Merck & Co.; and Lieut. Col. C. D. O'Neal, transportation officer of the Jersey City (N. J.) Quartermaster Depot, one of the Army's largest central procurement depots. Remarking that more than 200,000 cars per annum are required to transport the supplies procured and distributed by that establishment, Lieut. Col. O'Neal went into some detail to explain how the movement of these cars is controlled, how more than 50 per cent of them are loaded and unloaded within the first day of free time, and how car time is saved through planning and record-keeping and through liaison with the roads.



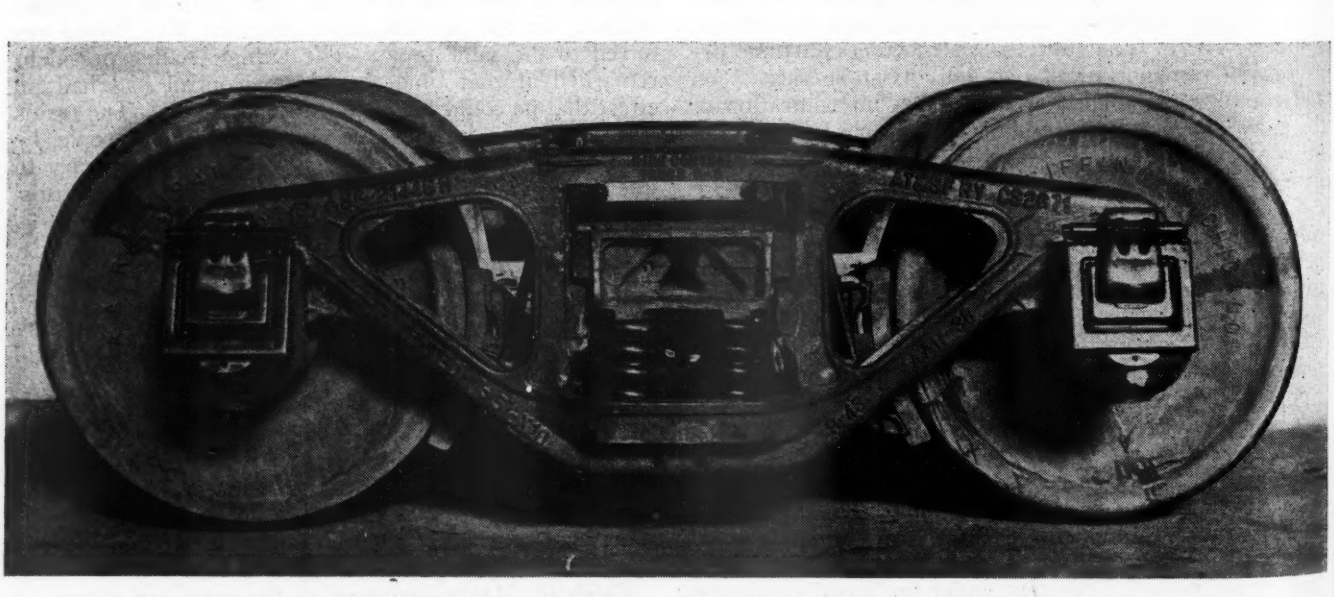
Details of the Ride-Control Feature

A. S. F. Produces Two Truck Designs

AS A result of extensive research, including laboratory and road tests completed just prior to Pearl Harbor, the American Steel Foundries, Chicago, has developed two freight-car trucks which are intended to meet the exacting requirements of modern freight service. The first truck, which embodies a friction device for damping bolster oscillation and is known as the Ride-Control Type A-3 truck, is recommended for application to all types of freight cars. The second, or Basic truck, is essentially the same as the first, but without the friction device. The Basic truck is available for use on any freight cars which individual railroads want equipped with all-coil spring groups, or combination snubber-coil groups. Both trucks have been kept well within the weight and price range of conventional freight-car trucks.

The Ride-Control truck is already in general freight interchange service on railroads throughout the country and, in addition, has been used under box cars especially equipped for the transportation of airplane wings, making unusually high monthly mileages in this service. The truck, equipped with long-travel springs, was tested in the A. S. F. Service Laboratory at speeds up to 90 miles an hour and is also reported to have operated satisfactorily at relatively high speeds when used under special express box cars, equipped for head-end passenger-train service.

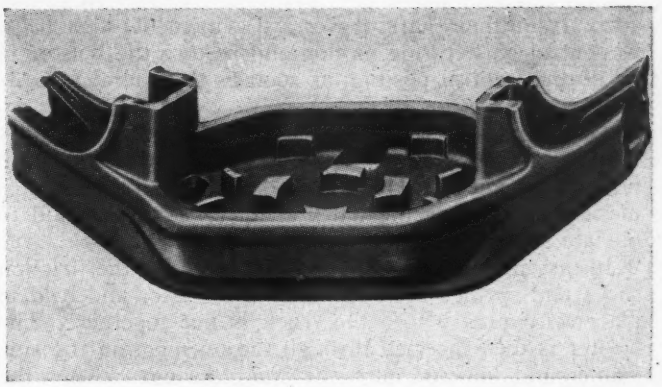
The A. S. F. Ride-Control truck derives its name from a type of construction intended to enable coil springs to



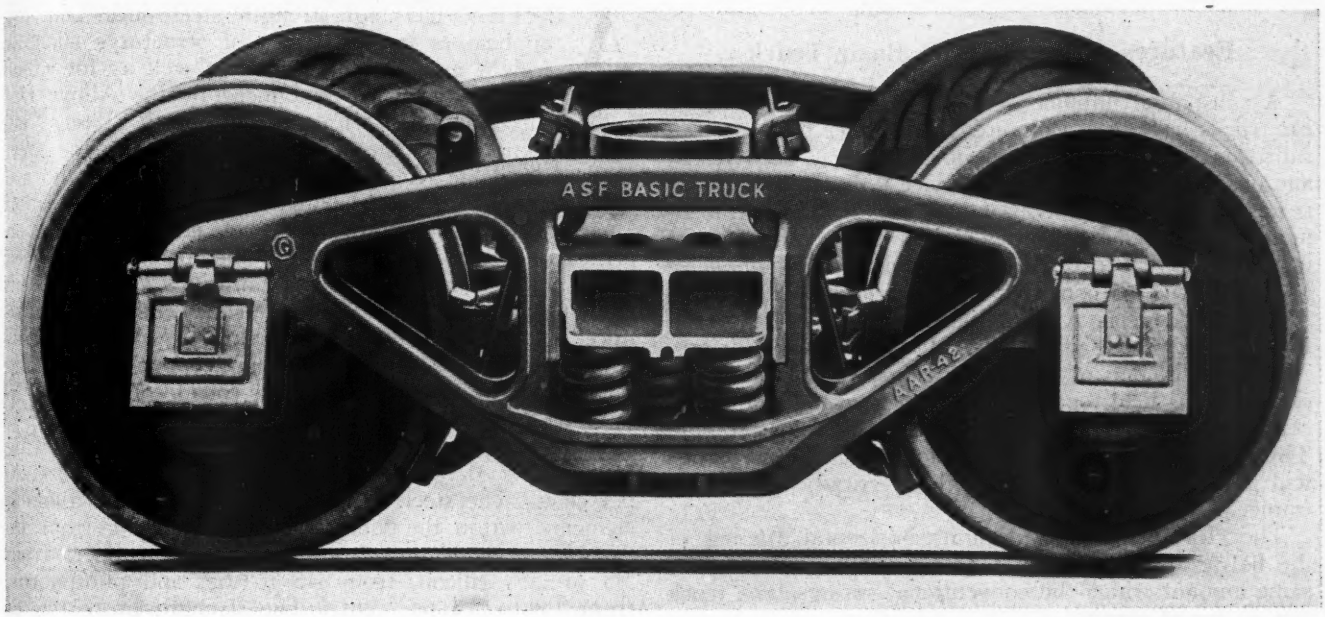
American Steel Foundries Ride-Control Truck A-3 Designed for Use with All Types of Freight Cars

function most effectively in a smooth and easy-riding freight-car truck in which all relative motions of the truck frames and bolster are damped and controlled. The side frames and bolster meet all A. A. R. strength requirements and are furnished in either Grade B or high-tensile steel. As shown in the illustrations, the side frames are the conventional truss design with a depressed flanged spring seat which can accommodate either A. A. R. standard coil springs, or softer coil springs having longer travel. Specific installations have been made using coil springs with $2\frac{1}{2}$-in., $3\frac{1}{16}$-in. and $3\frac{13}{16}$-in. total travel. The flanged construction of the spring seat eliminates the need of spring plates. Springs are properly spaced by means of lugs in the bottom of the spring seat, which has four large holes for drainage purposes.

The bolster is the conventional freight-car truck type,



The Flanged Spring Seat with Positioning Lugs and Drain Holes



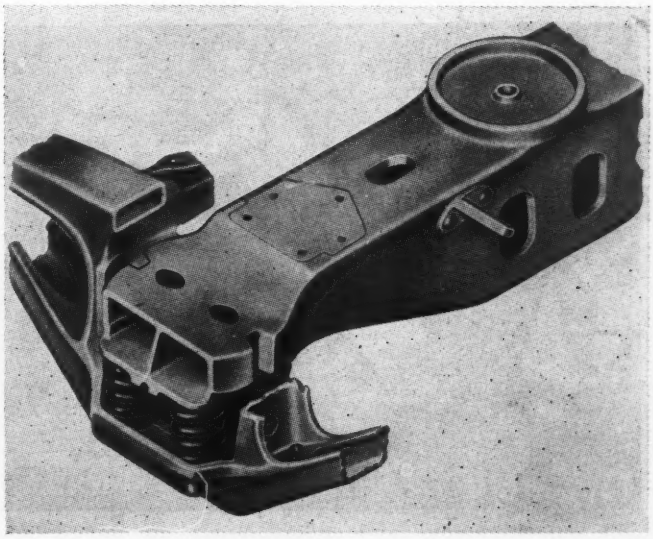
A. S. F. Basic Truck Designed for Use with All-Coil Spring or Combination Snubber-Coil Groups

with each end designed to incorporate a pair of special high-tensile cast-iron friction shoes which are forced outward under constant spring pressure against the truck-frame columns equipped with heat-treated carbon-steel friction plates, welded in place. The pressure of the Ride-Control springs, as they are called, forces the friction shoes down inclined ledges cast integral with the bolster end and outward against the column friction plates. The two springs are each compressed the same amount, when assembled in the bolster end, the amount of compression being constant and not variable with changing bolster loads or truck spring movement.

Preventing Oscillations

Since the pressure between the friction surfaces of the shoes and the column friction plates is always the same throughout the entire range of spring travel, only a minimum amount of friction for each fraction of an inch of motion is said to be required to control the spring action and prevent harmful spring oscillations. This construction tends to give the desired bolster snubbing effect without appreciably adding to the stiffness of the spring group, limiting its travel, or adversely affecting its softness of action when absorbing impact.

The same constant friction which controls the vertical oscillation of the truck springs, snubs or damps the lateral across the track movement of the bolster in the truck-side openings, thus cushioning lateral impacts within the limit of the bolster stops. The resistance of the truck springs to any force which tends to bend them



The Bolster and Side-Frame Connection of the A. S. F. Basic Truck

away from their natural vertical alinement, also helps to control bolster side motion and restore the bolster to its normal central position as soon as the lateral force is relieved.

The equal and balanced pressures between the truck bolster and the side frames tend to hold these parts in normal alinement. The Ride-Control feature acts automatically to square the truck at all times and is said to obviate any necessity for using spring planks.

In assembling the Ride-Control truck, the friction shoes and springs are applied to the bolster and held in place with pins before the truck is put together. The bolster is then inserted through the openings in the side frames and lowered onto the truck springs. After the bolster is in place, it is pinched first to one side and then to the other while the pins are being removed. When dismantling, the reverse operation is followed.

Features of the A. S. F. Basic Truck

A substantial number of the A. S. F. Basic freight-car trucks have been in interchange service on American railroads since 1940. Its performance has been tested and observed under A. S. F. Service Laboratory cars. It is in use under many thousands of freight cars and locomotive tenders built for the United States war department. Principal features of the truck include simplicity of design, rugged construction and relatively few parts.

The truck meets A. A. R. strength requirements and is designed for use with A. A. R. standard coil springs. As shown in one of the illustrations, each bolster and side frame is held together by tongues on the side-frame columns which mesh with grooves in the bolster end. This tongue-and-groove connection is a free fit which will not bind as the bolster angles vertically in the side frame.

The clearance provided limits horizontal angling of the bolster (the tendency to get out of square) to the same amount which the conventional spring-plank truck can go out of square.

The surfaces between the side frame columns and the bolster are designed to minimize column wear, eliminate binding, and assure generous contact areas as the bolster tends to angle horizontally. The truck offers no resistance to a return to squareness, such as is offered by the friction between the spring plank and the side-frame spring seat of the conventional truck. The flanged spring seat, which is an integral part of the side frame, is shown in a separate illustration.

The A. S. F. Basic truck is assembled in the usual manner and one of its important features is unusual ease of making necessary wheel changes.

* * * *

Its Male Baggage Forces Depleted By War, the Boston & Maine Now Has a Dozen Women Sorting Parcel Post and Baggage at North Station, Boston

High-Strength Steels For Railroad Equipment

A PATENTED high-strength steel developed for application in the design of structures such as freight and passenger cars as well as for other structural uses has been announced by the Alloys Development Company, 11 East Forty-Fourth Street, New York. Known by the trade name Aldecor, the steel will be available from a number of producers who are being licensed under the patent. The War Production Board has recently lifted some of its restrictions on critical alloying elements where the material produced is to be used in important applications; among them freight and mine cars are included. Aldecor is produced as a low-carbon open-hearth steel which contains small percentages of molybdenum, copper, silicon and phosphorus and is used in the as-rolled condition without further treatment.

A typical test heat of 200 tons had the following analysis: C .07, Mn .25, P .095, Si .48 and Mo .20 per cent. The steel, as produced, may contain alloying elements within the following range: carbon, from .06 to .12; molybdenum, from .18 to .30; copper, from .35 to .55; silicon, from .45 to .65, and phosphorus, from .08 to .13 per cent. The strength properties of the steels produced, both as to tensile and yield strengths, can be increased or decreased within limits by variations in the amount of alloying elements used. Minimum yield point in ½-in. sections or less in 50,000 lb. per sq. in. Such differences in strengths as are desired are obtained principally by varying the molybdenum content. High-strength properties are obtained with little sacrifice in the ductility of the product and the steels are, therefore, well adapted for either hot or cold forming. The steels within the composition range given do not harden appreciably when cooled suddenly from high temperatures, a feature of importance in connection with the use of ordinary commercial welding processes. The low carbon content also makes for good weldability.

The alloying elements—molybdenum, copper, silicon and phosphorus—are known to impart corrosion resistance to steels. Their combination with the low-carbon and low-manganese contents in Aldecor is said to impart a degree of atmospheric corrosion resistance several times that found in ordinary structural steels. In addition, resistance to abrasion is found to be substantially greater. Weight saving by the use of these steels is not obtained because they are lighter in weight than given sections of ordinary low-carbon steels, but because of their high-strength, corrosion and wear-resistant qualities makes it possible for engineers to use less steel in the design of structures.

The alloying elements employed are all found in generous quantities within the United States. In addition, the molybdenum and copper are fully recoverable from scrap steels of this composition.

Wages Go Up—The Army Steps Out

Government control of railroads ends January 18 after agreements providing for further increases "in lieu" of overtime are accepted by ops, non-ops, and Vinson

WASHINGTON, D. C.

ARMY control of the railroads terminated at midnight January 18, after Secretary of War Stimson had issued an order to that effect upon the President's advice that the wage controversy had been brought to an end on terms acceptable to Stabilization Director Vinson.

In a statement disclosing this action, made public late on the day the order became effective, Mr. Stimson pointed out that "the War Department intends to turn back the railroads with their books intact. In other words, from a financial standpoint, the War Department will never have been in the railroad business at all. We will owe the carriers nothing; they will owe us nothing."

Settlement of Wage Issues

This action returning the roads to private control followed promptly upon President Roosevelt's announcement at his press conference on the afternoon of January 18 that the stabilization director had approved the terms of an agreement between the carriers and the non-operating union leaders for a wage increase for that group of employees. This agreement was arrived at in negotiations between the parties between hearings held by the special emergency board—the so-called Shaw board—which the President had reconvened by his order of January 4 to recommend to him a settlement of the dispute.

As the leaders of the three operating brotherhoods who had at first refused to accept the President's "arbitration" of their case had on January 14 capitulated and entered into an agreement with the carriers identical in money terms with those which the engineers and trainmen had been awarded by the President on December 27, the settlement of the non-ops' controversy removed the last outstanding strike threat and allowed the Secretary of War to determine, as required by Executive Order No. 9412, that "continued possession, operation and control" of the railroads by the government was no longer required "to prevent interruption of transportation service."

The Army then moved promptly to make good repeated statements that it had no desire to run the railroads and would return them to private control at the earliest possible date.

The settlement reached in the non-ops' case resulted in the addition of a wage increase equivalent to or in lieu of overtime pay for hours worked above 40 hours per week on top of the sliding-scale 4-to-10 cents per hour increase awarded by the Shaw board in November, 1943, and "not disapproved" by Judge Vinson. The net result is a sliding-scale increase on this basis: Employees who were awarded 10 cents per hour more by the Shaw board will receive one cent additional, or 11 cents per hour; those who were awarded 9 cents per hour by the Shaw board also will receive one cent additional, or 10 cents per hour; all other non-ops—those who were awarded increases varying from 8 to 4 cents per hour by the Shaw board—will receive altogether an increase of 9 cents per hour.

The Non-Op Increase

Expressed in cents per hour, and using the figures adopted by the Shaw board in its November, 1943, award, the effect of the final settlement on various groups of non-op employees is shown in the following tabulation:

No. of men affected	Pay scale before any increase	Award of Shaw board	Added in lieu of overtime	Total wage increase
121,140	40 to 46	10	1	11
232,500	47 to 56	9	1	10
190,466	57 to 69	8	1	9
197,686	70 to 79	7	2	9
147,961	80 to 89	6	3	9
126,250	90 to 96	5	4	9
81,176	97 or over	4	5	9

Thus all non-op employees received an increase of 9 cents per hour or more, through the introduction of the "in lieu of overtime" issue, after they had indicated their willingness to accept, and had entered into an agreement with the carriers to effect, an increase of 8 cents per hour "straight across the board." This further adjustment resulted from the refusal of the stabilization director to approve the smaller uniform increase as "inflationary," under his interpretation of the requirements of the stabilization program, followed by his acceptance of the larger alternative adjustment, the "in lieu" allowance on top of the Shaw board's sliding-scale award, which was based on substandard living conditions in the case of the men who were paid less than 47 cents per hour, and interrelated job classifications in the case of the others.

In announcing at his January 18 press conference that Judge Vinson had indicated to him his intention of approving this non-op settlement, the President pointed out that the agreement applied only to the railroads represented by the three carriers' conference committees, and that settlements applying to the short lines and the Railway Express Agency still had to be formulated. He expected, however, that these would be disposed of to Judge Vinson's satisfaction through agreements to be entered into, probably by the next day, that is, January 19.

Short Lines and Express Agency

At the final meeting of the reconvened Shaw board on January 19, Donald Richberg, counsel for the non-op unions, advised the board that counsel for the short lines had agreed with him that he should inform the board that no one was authorized to enter into such an agreement for the short lines, but they would consent to a recommendation by the board that the terms of the

non-op settlement with the major carriers be applied to them as rapidly as the mechanics of the situation would permit.

At the same time, the board was informed by A. M. Hartung, vice-president personnel of the Railway Express Agency, that an agreement had been reached settling the wage controversy affecting those of its employees who were included among the non-ops. At an earlier meeting of the board, Mr. Hartung had called its attention to the fact that the express employees involved were working under conditions different from those affecting the non-operating railway employees in two respects: first, that the R. E. A. had put into effect, as of November 19, 1943, the date specified by Director Vinson, the sliding-scale 4-to-10 cents per hour increase, so that its employees, unlike the railway employees, were being paid as provided by the Shaw board's November award; and second, that R. E. A. employees already were being paid for overtime after 44 hours per week, instead of after 48 hours as in the case of the rail employees.

The agreement finally accepted by the express employees provided for a sliding-scale increase ranging from 7 to 11 cents per hour, including both the Shaw board award and the "in lieu" adjustment, as compared to the railway non-ops' 9-to-11 cents. Using the grouping of hourly pay scales adopted by the Shaw board, and set forth in the tabulation above outlining the non-ops' settlement, the over-all increase allowed express employees ranged as follows: To the group allowed 10 cents by the Shaw board in November, 11 cents; to the 9-cent group, 10 cents; to the 7 and 8 cent groups, 9 cents; to the 6-cent group, 8 cents; to the 5-cent group, 7½ cents; and to the 4-cent group, 7 cents. The additional amount received by the express employees "in lieu" of overtime, therefore, ranged from 1 to 3 cents per hour, as compared to the range of 1 to 5 cents allowed the railway non-ops.

The Rétroactive Phases

The express and railway non-op agreements both provided that such part of the total increase as was awarded "in lieu" of overtime would be effective as of December 27, while that part resulting from the application of the Shaw board 4-to-10 cent award was retroactively effective from February 1, 1943. Mr. Hartung informed the Shaw board that the R. E. A. employees would receive the amounts due them under the retroactive provision as soon as they could be figured, while Judge Shaw, chairman of the special emergency board, remarked in the course of its hearings that checks to cover the retroactive increase allowed the non-ops had been "held up" when the unions, by invoking the National Mediation Board's services, had prevented the roads from putting the 4-to-10 cent increase into effect as directed by Director Vinson.

The increase of 4 cents per hour allowed the ops by the Stacy board under the Little Steel formula, which had been put into effect by the railroads in spite of the "insulted" op leaders' objections, was retroactive to April 1, 1943, while the President's "arbitration" award of 5 cents per hour "in lieu" of overtime and away-from-home expense and of a week's vacation pay was made effective as of December 27, 1943. These terms were applied uniformly to the employees represented by the two brotherhoods which accepted the President's "arbitration" before Army control was ordered and by the three hold-outs whose acceptance was obtained on January 14.

As reported previously in *Railway Age*, the three hold-outs had expressed concern over the extent of the "freeze" of wage rates for the duration which they read into the order putting the Army in control of the roads. As finally drawn, their agreement provided specifically —and therein departed from the terms accepted by the engineers and trainmen—that the freeze applied only to the "in lieu" and vacation features of the increase, and not to the basic increase in hourly pay. In reply to a letter to the President from Alvanley Johnston and A. F. Whitney, heads of the engineers' and trainmen's brotherhoods, respectively, seeking an interpretation of the freeze, War Mobilization Director Byrnes on December 31, 1943, had replied for him in the following letter addressed to "Honorable A. F. Whitney":

Dear Al:

The President has requested me to acknowledge this letter dated December 31, signed by you and Alvanley Johnston.

The President states that you are correct in your interpretation of the language you quote from his statement announcing his decision of the differences between your organizations and the carriers.

He says that his statement as to the period of the agreement had reference to the increases above recited. The increases above recited are five cents per hour effective immediately shall be paid as the equivalent of or in lieu of claims for time and half pay for time over 40 hours and for expenses while away from home, and vacation pay.

The President says that his decision does not affect any other rights of the employees whether set forth in contracts or granted by statutes.

Holdout Ops Get Specification on "Freeze"

In the agreement between the carriers and the three holdouts, which was reached two weeks after Justice Byrnes so interpreted the freeze, the phases of the increase to which it applied were limited in the following words:

The subjects of time and one-half pay for time worked over 40 hours per week, expenses away from home, and vacations with pay, shall not be further considered by the parties during the continuation of hostilities. This agreement arrived at in time of war shall not prejudice the rights of the parties after . . . the cessation of hostilities to again consider the three subjects above referred to . . . in accordance with the provisions of the Railway Labor Act. . . . The provisions of this section shall not be construed as a restriction on the right of the parties to take action with respect to change of the basic rates of pay established by application of the increases in rates of pay provided for in this agreement, or to amend existing rules, or to propose new rules not connected with the three subjects above referred to. . . .

That the "in lieu" award has the effect of a straight wage increase was indicated by this provision of the agreement:

An additional increase of 40 cents per minimum basic day or five cents per hour . . . shall be paid as the equivalent of or in lieu of claims for time and half pay for time worked over 40 hours per week and for expenses away from home; said additional increase to be applied in the manner set forth in Appendix "B" [that is, that all basic daily rates of pay will be increased in the amount of 40 cents per day], . . . and overtime compensation shall continue to be computed and paid in accordance with the provisions of existing agreements.

In addition to provisions setting forth the manner of application of the increases to train and engine service employees, the agreement further provided that monthly rates of dining car employees and yardmasters affected by the agreement should be increased $9.60 on account of the Stacy board award and $12 on account of the "in lieu" settlement.

Upon approval of the January 14 agreement by Director Vinson, and in line with the suggestion of the labor advisers of the War Department, as accepted by the President, that the freeze order should be modified to allow the agreement to become effective as of December 27, so that all the op unions would receive the same settlement in money terms, Maj. Gen. Gross, chief of transportation of the Army, complying with memoranda from Lieut. Gen. Somervell and Secretary Stimson, on January 15 issued General Order No. 2, implementing the op agreement, as follows:

1. Each of the carriers which are parties to the agreement dated 14, January, 1944, between certain carriers and their employees represented by the Order of Railway Conductors, the Brotherhood of Locomotive Firemen & Enginemen and the Switchmen's Union of North America, is hereby authorized to make the payments provided for in that agreement, in accordance with its terms.

2. Any carrier not a party to the agreement of 14, January, 1944, is authorized to enter into agreements with its employees represented by said organizations, providing for the payment of wage increases and allowances not in excess of those provided for by said agreement, upon substantially the same terms and conditions as are contained in said agreement, and to make the payments provided for by such agreements."

Shaw Board Hearings

While the op controversy was being thus resolved, settlement of the non-op dispute continued under negotiation between the parties and before the Shaw board. As explained in *Railway Age* of January 15, page 203, this board's proceedings were scheduled to get under way, after postponement, on January 13, but on that day they were again set ahead to January 14, to allow time for further discussions between the parties. As the parties had not then reached any agreement, the board proceeded with hearings on January 14 and 15, in the course of which the unions and the carriers outlined to the board the bases for settlement which they were then proposing. While the board held subsequent brief sessions—including one on January 19 that led to its *sine die* adjournment of hearings after the settlements arrived at had been incorporated in its record—admission of evidence and hearing of arguments did not proceed beyond the January 15 meeting.

At the time the unions' counsel, Donald Richberg, on January 14 outlined to the board the non-ops' proposals for a settlement, it was rumored that Director Vinson was inclined toward a 9 to 10 cents per hour increase, to incorporate the Shaw board's 4-to-10 award and the "in lieu" adjustment. The unions' proposal went considerably beyond this, however, while the carriers' counsel, Jacob Aronson, vice-president of the New York Central, did not on that day disclose the roads' position specifically.

As presented by discussions of counsel at that time, the unions were still contending that the 4-to-10 award was in effect, as a result of their acceptance of it (according to a formal statement by Bert M. Jewell, the chairman of the group representing the so-called 15 co-operating organizations) on December 23 verbally, and in writing on December 27, before the roads were seized by the government, leaving the only issue before the board "in lieu" claim. The roads, however, contended that the situation could not be so narrowly viewed, that the basis for the 4-to-10 award, involving substandard living conditions and interrelated job classifications, could not be eliminated from consideration along with the "in lieu" factor.

Assuming that the 4-to-10 award was in effect, Mr. Richberg proposed, as the unions' idea of a proper "in lieu" award, what he termed an "equitable" sliding-scale increase ranging from 3⅓ cents per hour in the case of the employees paid less than 47 cents per hour before the Shaw board award to 7¼ cents in the case of the group formerly receiving 97 cents and over. When added to the Shaw board's 4-to-10 award, the aggregate increase the non-ops would have received under this proposal would have ranged from 11¼ to 13⅓ cents per hour, with the largest amount going to the men in the lowest pay bracket.

Later, after assuring the board that the roads did not propose that its 4-to-10 November award be upset, but rather that the basis on which it was devised be taken into consideration along with any recommendation that might be made on the "in lieu" question, Mr. Aronson disclosed the carriers' proposal to adjust the "in lieu" settlement to the 4-to-10 increase. This proposal was tabulated for purposes of discussion, but was not actually introduced until after there had been a considerable interchange of comment between counsel as to the exact stand taken by the roads, with the result that the tabulation was rather frequently referred to as the railroads' "secret weapon."

In effect, the terms then offered by Mr. Aronson amounted to an over-all increase of 10 cents per hour, the amount awarded by the Shaw board in November, for the group formerly paid less than 47 cents per hour, and an increase of 9 cents per hour for all other non-ops. Mr. Aronson discussed at some length the contention that, on the basis of the 50-cents-per-hour standard adopted by the War Labor Board as its line of separation in determining substandard living conditions, the lower paid brackets of non-op employees were over-generously treated in the Shaw board's 4-to-10 award, and therefore were not entitled to a large additional "in lieu" consideration. He was not disposed to argue, however, that any downward readjustment be made in that award, but only that the aggregate amount recommended should not exceed the 10 cents allowed that group on the substandard of living basis. In the case of non-ops in the brackets including all pay scales above 70 cents per hour, he proposed that the separate "in lieu" award be the same amount, 5 cents per hour, as that allowed by the President in his "arbitration" of the ops' case.

Board Urged Parties to Reach Own Agreement

When the Shaw board recessed late in the afternoon of January 15, it was with the recommendation that the parties to the controversy continue their negotiations over the week-end in an effort to work out an agreement that all could accept, and the January 18 agreement resulted from those negotiations. In the course of the discussions before the board, Mr. Richberg had indicated that the unions would be disposed to accept whatever recommendation the board might make after its consideration of the record, in view of the fact that the government was in control of the railroads and in position to make its finding effective whether or not it met the unions' expectations.

By reaching an agreement with the carriers, however, the non-ops not only avoided such a contingency, but they emerged from the negotiations with terms substantially better than they had agreed in the summer to accept, though the "in lieu" feature of course was not then a factor in the controversy.

Official advice that an agreement had been reached in the non-ops' case was conveyed to the President in a letter from J. J. Pelley, president of the Association of American Railroads, dated December 18, which read in part as follows:

This agreement ratifies the graduated scale increases which were recommended by the special emergency board and not disapproved by the stabilization director, and also disposes of the issue of time and one-half for work performed in excess of forty hours per week. The agreement was submitted to Judge Vinson this morning for his consideration and we are hopeful that he will find it consistent with the stabilization program.

The agreement contains provision that the allowance which has been agreed upon in lieu of overtime shall become effective as of December 27, 1943, and like other provisions of the agreement is, of course, subject to governmental approval.

You addressed a letter to the Secretary of War in which you asked him to make the overtime provision in the case of the conductors, firemen and switchmen effective as of December 27 and it is respectfully suggested that you may find it appropriate similarly to advise the Secretary as to the effective date of the supplementary increase in lieu of overtime in the case of the fifteen nonoperating organizations.

Should this agreement with the nonoperating organizations receive governmental approval it will dispose of the entire wage controversy between the carriers represented by the Eastern, Western and Southeastern Carriers' Conference Committees and their operating and nonoperating organizations.

Termination of Army Control

Later on January 18 the President wrote to Secretary Stimson along the lines that Mr. Pelley had suggested, as to modification of the wage "freeze." In his press conference that afternoon, the President had indicated his intention of writing such a letter, and he had added that he would also suggest to the Secretary that he had authority to turn the roads back to their owners. The final paragraph of his letter to Mr. Stimson developed that idea in these words:

As this settlement brings to an end the wage controversy between the carriers and their employees, I hope as soon as you have satisfied yourself that the provisions of the Executive Order have been complied with, that you will promptly return the railroads to the owners.

Stimson Statement

A few hours thereafter the following order was issued by Mr. Stimson, formally terminating Army control:

1. Pursuant to the provisions of Executive Order No. 9412 dated 27 December 1943, it is hereby determined that continued possession, operation and control by the United States of the carriers taken and assumed by or pursuant to that order, are no longer required in order to prevent interruption of transportation service.

2. The expeditious termination of government possession, operation and control of the carriers with the minimum imposition of administrative burdens on the War Department and on the carriers which is consistent with proper protection of the government's interests will facilitate the prosecution of the war.

3. In accordance with the foregoing and as directed by the Executive Order, the following procedure is established for effecting the final disposition of the action taken by and pursuant to the Executive Order:

a. Possession, operation and control by the United States of all common carriers by railroad, express companies, terminal companies and associations, sleeping, parlor, and railroad owned or controlled private car companies, herein referred to as carriers, and all appurtenances and facilities used in connection therewith, taken and assumed by or pursuant to that order are hereby terminated and relinquished as of 12 o'clock midnight, 18 January 1944. No further action shall be required to effect the termination of government control and relinquishment of possession hereby ordered.

b. In view of the short period of operation by the government under said Executive Order, all rights which the United States may have to an accounting with respect to the operation of the carriers during the period of government possession, operation and control are hereby waived and released as to each carrier whose properties were taken pursuant to said Executive Order which shall execute and deliver to the United States an instrument in the form approved by the Commanding General, Army Service Forces, or his delegate, indemnifying the United States against liability to third parties arising out of possession, operation and control during the period of government possession, operation and control and releasing all claims against the United States based upon Executive Order 9412 or any action taken pursuant to that order.

c. The right to such an accounting by the United States is hereby expressly reserved as to any carrier which fails to execute and deliver such instrument of release or which otherwise asserts or reserves any claim against the United States by reason of any action or omission pursuant to said Executive Order.

Announcement of this order was accompanied by a statement by Secretary Stimson, in which he said, in part:

I have been informed by the President that all unresolved wage questions have been agreed upon by the carriers and the railroad labor organizations and that the agreements have been approved by the wage stabilization director. These agreements provide assurance that there will be no stoppage of rail service and that the employees of the railroads will continue to discharge their responsibilities faithfully and conscientiously so that there may be no diminution in the rising tide of our military might.

I have therefore ordered that War Department possession and operation of the railroads cease at midnight tonight, January 18, 1944. Because of the short period of government operation and because there has been virtually no interference with the normal management and functioning of the roads, the War Department intends to turn back the railroads with their books intact. In other words, from a financial standpoint, the War Department will never have been in the railroad business at all. We will owe the carriers nothing; they will owe us nothing. Stipulations to this effect have been prepared and will be presented to each railroad for signature. These stipulations constitute a general release of claims on both sides and indemnify the government against liability in connection with suits by third parties.

In returning the railroads, it is my desire to thank the men and women of American railroad management and labor for remaining at their posts throughout the period of government control and thus preventing a break in the orderly movement of troops and supplies to the fighting fronts.

The Army's interest in the smooth functioning of these roads is not lessened by their return to private operation. As we prepare for the crucial offensives that lie ahead, we look to every railroad employee to fulfill his solemn obligation to be at his duty station regularly and keep intact the lifeline of transportation, on which all our plans depend. As Americans, I am confident that they will not fail in this great trust.

Pelley and Harrison Thank President

To add a final touch to the story of the Army's 22-day control of the railroads, Mr. Pelley on January 19 wrote the President as follows:

May I on behalf of the nation's railroads express to you as Commander-in-Chief of the Armed Forces our appreciation of the efficiency with which the Army took possession, held and then relinquished possession, of the railroads.

Upon the occasion of the emergency which precipitated the taking over of the railroads, the country was tremendously relieved by reason of the extraordinary facility with which this far-flung and complicated transition was accomplished. The smoothness with which the Army functioned in connection with its possession and operation of the railroads has called forth universal commendation. Even more gratifying is the fact that forthwith upon the settlement of the last wage dispute, you and the Secretary of War took all necessary official action so that within a few hours the Army was prepared to, and actually did, accomplish the complete restoration of the railroads to their owners.

It has been a privilege to work with and under Lieutenant General Brehon B. Somervell and Major General Charles P. Gross and their staffs. With all other Americans we find a large measure of comfort in the knowledge that our military fortunes in this time of war are in the hands of leaders of this caliber.

The White House also made public a letter the President received from George M. Harrison, as follows:

I am grateful for your assistance in bringing about final disposition of the non-operating railroad employees' case.

I am confident they will render loyal and patriotic service and back up your program to win the war. There never was any question in this respect. They have always been anxious to do their part.

While there have been some discussions concerning certain phases of the matter, you found the bases of solving the difficulty, and certainly, I appreciate your sympathetic attitude and assistance in this direction.

The railroad workers of the nation are grateful for your help.

Railroads-in-War News

"Black Market" Curb Asked by Eastman

Calls on city authorities for laws to make rail ticket deals unattractive

The mayors of more than 100 of the country's principal cities have been called upon by Director Joseph B. Eastman of the Office of Defense Transportation to adopt measures to combat the growing "black market" in railway and Pullman accommodations, the O. D. T. announced January 18.

"During a period of scarcity," Mr. Eastman explained in the letter he addressed to the city officials, "it becomes financially profitable to secure reservations in order to resell them at a premium. Certain persons in a number of our large cities have been engaging in this practice and, in many cases, charging exorbitant fees over and above tariff price of the tickets, and have been thereby interfering with the orderly and equitable distribution of railroad reservations. An especially unfortunate aspect of this practice has been the additional difficulty which it has brought to persons traveling on essential war business, in their attempts to secure space."

Carrier Employees Bribed—It was pointed out by the O. D. T. that the "unlicensed activities" of "middlemen" who profit by such transactions sometimes involve dishonesty on the part of employees of the carriers, with the result that those discovered have been discharged for accepting bribes. Investigations by the O. D. T., the railroads and others in various parts of the country have revealed instances where a mark-up as high as $50 has been charged, and paid, for accommodations on heavily traveled trains, it was explained.

"Commonly referred to as 'black market' in railroad reservations," wrote Mr. Eastman, "this has been the source of considerable concern to this office as well as to officials of cities in which the practice is known to exist, and to officers of railroads who were trying to maintain an orderly distribution of railroad accommodations in this trying period.

Urges Ordinances—"I am writing, therefore, to request that you confer with local business men and hotel and railroad officials to find out the extent to which your community is affected by this problem. If it is discovered that this 'black market' sale of tickets exists to any serious degree in your city, I respectfully urge that you ask your city council for an ordinance which would prohibit such activity, or remove the profit incentive from it."

With his letter, Mr. Eastman included a copy of the ordinance recently enacted by the council of New York City, as reported in *Railway Age* of January 8, page 163, by which the legal profit on the resale of any transportation accommodations is limited to a $1 service charge. Violations are subject to a fine up to $100, imprisonment up to 10 days, or both. Pointing out that the O. D. T. had supported this measure at a public hearing, Director Eastman commended it to the city officials whom he addressed.

In concluding his appeal for public action to restrain this "black market" in railway tickets and reservations, Mr. Eastman asked the heads of the principal cities to inform him of the results of their investigations of conditions in their communities, and of "any corrective action which may be taken."

Merck Plan for Higher Car Efficiency

H. F. Suiter, traffic manager of Merck & Co., New Brunswick, N. J., told the Atlantic Shippers' Board last week in Philadelphia of his company's plan for increasing efficiency of freight car utilization through enlisting the services of the plant Labor Management Committees. Pointing out that there are many thousands of these committees throughout industry, the speaker explained how, through the development of competition, the elimination of "buck-passing," and systematic inculcation "down the line" of understanding of the real purpose in keeping cars rolling, they function effectively in the car efficiency program.

Such meetings, he remarked, are "red face" meetings, because the participants either are blushing with pride or flushed with embarrassment, and either condition is production of effort that is translated, in his plant, into a very excellent record of cars held over 48 hours.

1943 Lake Traffic Below 1942

Great Lakes carriers transported the second largest tonnage in their history during the 1943 season, according to A. T. Wood, director of the Office of Defense Transportation's Great Lakes Division. The bulk freight traffic of the lakes in 1943, covering the four major commodities of iron ore, coal, grain and limestone totaled 175,690,915 net tons, as compared with the 1942 total of 182,731,421 net tons.

For the fifth successive season, the coal movement exceeded 50,000,000 tons, and shipments of grain, amounting to approximately 422,000,00 bushels, were the largest of any season since 1928.

Cars Going to Canada Stir Ire of Senators

Solons aroused over diversion when grain elevators in U. S. are blocked

Senatorial wrath descended upon the Office of Defense Transportation, the War Food Administration, and the War Production Board during the past week's hearings before the special interstate commerce subcommittee investigating the railroad transportation situation in accordance with Senate Resolution 185. At a time when they were hearing from home about grain-car shortages and blocked elevators in the Northwest, the solons were aroused about the diversion to Canada of 200 United States cars a day for the purpose of importing 40,000,000 bushels of feed grain purchased in the Dominion by the Commodity Credit Corporation.

Would Order Be Legal?—The cars, which started going into Canada on January 12, are being sent in by the Association of American Railroads under "voluntary" arrangements entered in response to a request from Director Joseph B. Eastman of O. D. T. But the build-up to the "voluntary" arrangements was a W. F. A. certification to the W. P. B. that the grain had to be imported by April 30; a W. P. B. certification to O. D. T. that the movement required transportation priority; and an O. D. T. certification to the Interstate Commerce Commission that a service order was required to direct the railroads to deliver 200 empty grain cars a day to Canadian roads. Anticipating a disposition on the part of railroads to contest the legality of an I. C. C. order requiring them to send their cars into a foreign country, the A. A. R. advised Mr. Eastman that the cars would be delivered in response to his letter. Thus the O. D. T. director advised the I. C. C. no order was necessary.

Chairman Wheeler of the interstate commerce committee, who presided at some of the subcommittee's sessions, asserted that none of the government agencies involved had any authority under the Constitution or the statutes to issue any order which would have the effect of requiring a railroad to send its property to a foreign country. Senator Reed, Republican of Kansas, agreed, but he made more of his view that the Canadian grain was not needed by April 30 and that the period between now and April 30 was not the best time to move it in relation to the transportation needs of domestic grain. As Mr. Eastman put it, "I seem to be disputed on both sides."

Big names appeared on the hearing's rec-

ord. In addition to Mr. Eastman, the subcommittee heard Charles E. Wilson, executive vice-chairman of W. P. B., and Marvin Jones, administrator of W. F. A. The senators had much to say about "bureaucrats," and while they were not too tough with the top agency executives who appeared, they did not spare the advisers of those executives. J. G. Scott, general counsel of O. D. T., was severely criticized in connection with the legal advice which he gave Mr. Eastman; while the going was also rough in spots for William Y. Elliott, director of the W. P. B. Division of Stockpiling and Transportation, and Mark Upson, W. F. A. director of transportation.

Buford Counters Gormley's Remarks—Differences of opinion within the A. A. R. were brought out when C. H. Buford, vice-president, Operations and Maintenance Department, appeared to "clear up the record" made earlier by M. J. Gormley, A. A. R. executive assistant, who had complained of interference from government agencies and asserted that the railroads would get the grain moved "if these people will just quit monkeying with the machine they don't know a damn thing about."

"It is not a question," Mr. Gormley also said, "of allowing the Association of American Railroads to do this if and when they think it is possible. This imposes an order on us to do something, and we have no control over the number of cars per day or the period in which they will be carried over there.

"The whole thing is to me a tempest in a teapot. . . . This is just a result of some bureaus' attempting to foist the thing on us against our will. If they will let the whole damn thing alone and turn it over to us, tell us what they want, they will get it done without trouble. We will deal with Canada, we will deal with our railroads, so the whole damn thing is unnecessary."

At the subsequent session Mr. Buford described himself as one who was "particularly embarrassed and disturbed" in making his statement, because of his long association and friendship with Mr. Gormley. He first pointed out that the railroads were being operated by the War Department, adding that his instructions from the commanding general were to carry on in the normal way.

Ignorance of Bureaucrats—Coming to his comment on the Gormley statement, the A. A. R. vice-president expressed the view that his associate had not been in possession of all the facts when he "inadvertently" cast reflections on "certain government employees—bureaucrats as they were referred to"—particularly Mr. Upson of W. F. A. Mr. Gormley's specific reference to Mr. Upson was in response to a question from Senator Reed who asked if the A. A. R. executive assistant's remarks about people "monkeying with the machine they don't know a damn thing about" included Mr. Upson. And Mr. Gormley said, "That is right."

Mr. Buford asserted that Mr. Upson had been "perfectly frank" in all negotiations with respect to the grain movement under consideration. The A. A. R. vice-president took upon himself full responsibility for the arrangements under which the 200 cars a day are now going into Canada. He said that upon being advised of the I. C. C. plans to issue the service order, he had consulted with A. A. R. attorneys who were of the opinion that there was no authority to issue the order. "In order to avoid legal complications," Mr. Buford contacted Mr. Eastman and suggested that if the latter "made a request, which we would construe as a request of the President of the United States, we would do our best to put 200 cars a day in. And we propose to carry out that plan to the best of our ability."

Moreover, Mr. Buford disputed Senator Reed's view that now was not the best time to move the Canadian wheat, assuming it has to be moved sometime this year. "If anyone has indicated that it can be brought in any other way, all-rail," he said, "they are wrong." And it is the opinion of the A. A. R. vice-president that 200 cars a day will not get the 40,000,000 bushels in by April 30. That program was based on an assumed 14-day turnaround, and the turnaround thus far has been 18 days. [As stated above, the cars only started to go in on the 200-a-day basis January 12, but a total of 822 cars had been previously sent in during the period from December 9 through January 11.]

Buford Lauds Govt. Agencies—Getting back to the Gormley statement, Mr. Buford said that remarks to the effect that "if the railroads were left alone to do things, we wouldn't have any trouble" were contrary to his opinion. He went on to say that actions of the O. D. T. and I. C. C. service orders have aided greatly in the conservation of equipment; while W. F. A. and W. B. P. have also been cooperative. In other words, Mr. Buford sees in the present case "no controversy," for the railroads "are complying with a request of the Commander-in-Chief." Neither have they had "any quarrel with any government agency."

The A. A. R. vice-president meanwhile conceded to Senator Reed that if he had his way, the 200 cars would be placed against domestic elevators instead of being sent to Canada. At the same time he asserted that present car shortages in the Northwest were due principally to manpower conditions—"still the most critical problem facing the railroads." The "continual erosion," he went on, has got the carriers to the point where they have "thousands of cars that we haven't the personnel to move." Yet "no one seems to have any desire to correct this situation. . . . The question is whether you want the transportation plant of the United States. Certainly something should be done to give us a 60- or 90-day breathing spell to prevent a bog-down." In response to a question as to whether O. D. T. could help on this manpower problem, Mr. Buford said O. D. T. has been doing all it could. He added that all government agencies "except the ones handling it" see the situation.

U. S. Elevators Blocked—The present series of hearings opened on January 13 with presentations by senators and representatives who put into the record various telegrams and letters which they had been receiving about the grain car shortages and blocked elevators. Figures on the situation in the Northwest were presented by R. E. Clark, manager of the Closed Car Section, Car Service Division, A. A. R., who said that as of the night of January 12, there were 60 blocked elevators in Montana, 248 in North Dakota, 99 in South Dakota, 30 in Minnesota, 79 in Iowa, 36 in Nebraska, and six in Missouri. Daily unfilled orders for grain cars at Northwest country stations outside terminal markets were averaging 8,834; while the railroads were in a position to supply only 2,000 cars a day to fill such orders. It was pointed out, however, that the orders are cumulative, and that even if cars were available the normal loading capacity would not exceed 3,000 cars a day.

Mr. Clark also explained that the 822 cars which went into Canada between December 9 and January 11, as noted above, were so assigned after the I. C. C. had granted permission for the sending in of 50 cars a day. Up to January 10 only 165 of the cars had returned from Canada. Commissioner J. Monroe Johnson of the I. C. C. later explained that the commission had been urged early in September to send in 325 cars a day, and the December authorization for 50 cars a day to go in was the result. Mr. Johnson conceded that grain is short, but insisted that transportation is short also; and it was his opinion that sufficient grain could be got in this country with less expenditure of transportation.

O. D. T. Had to Obey—O. D. T. Director Eastman took the position that the certifications which he received from W. F. A. and W. P. B. were binding upon him, controlling his action to the extent that he deemed action necessary to bring about the movement out of Canada. He did not, however, want "to hide behind W. F. A. and W. P. B. altogether," for he could have appealed the certifications to Director James F. Byrnes of the Office of War Mobilization or "possibly to the President." He did not appeal.

Their questions and comment indicated that Senators Wheeler and Reed did not concede that any cars should have been allowed to go into Canada until the blocked elevators in the Northwest had been relieved. Moreover, they agreed with A. A. R. Executive Assistant Gormley's suggestion that the railroads should have been left alone to make the movement when they thought best. "The railroads," Chairman Wheeler later told W. P. B.'s Wilson, "have said they can handle the situation if left alone. They are in a better position to know than some alleged expert you have. If they don't handle it and can't handle it, that's another thing. But they have done a good job, and I think if you leave it to them, they will clear up this situation in the Northwest and move the Canadian grain too. Business wants to do a job to help win the war, but they don't want some fellow who doesn't know a damn thing about it to tell them how to run their business."

Meanwhile, Mr. Wheeler had also made to Mr. Eastman and O. D. T. General Counsel Scott his assertions that there was no power vested in the I. C. C. to issue the proposed service order. His position in that connection was supported by J. Carter Fort, A. A. R. general counsel, who later responded to the chairman's request for a

presentation on the legal aspects of the matter.

For his own part, Mr. Wheeler told Mr. Scott he was "amazed" that any lawyer would say the I. C. C. or any other agency could order a railroad to ship its cars into Canada. "You haven't any more damn right to do it than a Chinaman," the chairman added. Mr. Scott conceded that "reasonable minds may differ," but Senator Wheeler came back to say "there can't be any difference of reasonable minds with respect to that law," i.e., section 1(15) of the Interstate Commerce Act which contains the President's wartime priority powers, now delegated to Mr. Eastman.

Scott's Views Called Idiotic—When Mr. Scott insisted on his view that the I. C. C. did have the necessary authority, Senator Wheeler interrupted him to exclaim, "It's idiotic, and if that's your judgment of the law, they ought to get someone else down there to interpret the law."

The principal W. P. B. expert involved was Director Elliott of the Stockpiling and Transportation Division, who assumed full responsibility for W. P. B. action; he wrote for Mr. Wilson's signature the letter wherein W. P. B. joined in the W.F.A. certification to O. D. T. Senator Wheeler was interested in Dr. Elliott's practical experience in transportation, and the doctor told him he had "almost none." "That's the trouble," said the chairman, whereupon Dr. Elliott came back to say that he was guided by the advice of practical transportation men on his staff.

Elliott Changes the Record—Later on he made this statement for the record: "At one point in my testimony, I said I had no practical experience in transportation. I have been a student of transportation for many years and have lectured on it at Harvard." Dr. Elliott did not think the matter should be left to "the good pleasure of the Association of American Railroads."

W. F. A. Administrator Jones' testimony was mainly an argument with Senator Reed as to the necessity for getting the grain in by April 30. Senator Reed, without questioning the need for the Canadian grain, argued his proposition that it will not be needed until late this year or early next year, and now is a poor time to bring it in. Mr. Jones' position was that "with a war on, if a fellow doesn't look down the road and anticipate situations, we'll get into terrible jams."

The Senator threatened to introduce a resolution taking away W. F. A.'s certifying power, saying to Mr. Jones "If you persist in this pig-headed program, then Burt Wheeler and I will put through such a resolution."

On the following day Chairman Wheeler and Senator Reed told reporters that they had since talked with Mr. Jones, suggesting that the certification be vacated and the railroads left to make what they considered the most expedient arrangements for bringing in the Canadian grain after the domestic situation had been relieved. As Senator Reed told it, Mr. Jones indicated—"I don't want to say he made a commitment"—that such a plan might be made agreeable to W. F. A. Hence conferences on the matter were to be arranged within the next few days.

Give Railroads a Chance—If such conferences resulted in vacation of the certification, Senator Reed anticipated that the railroads would make every effort to move idle box cars from the East to the Northwest grain belt. And when the domestic situation is relieved, they would undertake "without guarantees" to bring in the Canadian wheat. Or, as Senator Wheeler put it, "the railroads have said they could handle the job, and it seems to me that they should have a chance."

The hearings adjourned on January 18, subject to the call of the chairman, presentations at the final session being those of B. C. Larkin, member of the Public Service Commission of North Dakota, and J. H. Aydelott, deputy director of the O. D. T.'s Division of Railway Transport. The senators wanted Mr. Aydelott to explain how he was able to advise O. D. T. Director Eastman that the diversion of 200 cars a day to Canada could be made without detriment to the grain movement in the United States.

Mr. Aydelott's explanation was that about the first of December, when he discussed the matter with Mr. Eastman, the principal loading peaks requiring box cars had been passed and the Canada-U. S. box car balance favored the U. S. for the first time in many months. In the latter connection, Mr. Aydelott expected that the cars could be delivered on the per diem balance owed Canadian roads. Chairman Wheeler asserted that Mr. Aydelott had given Mr. Eastman "rotten advice, just as his lawyer gave him rotten advice." And Senator Reed said: "I'm disappointed—tremendously disappointed."

Quite a "Soft-Soaper" — Meanwhile Commissioner Larkin of the North Dakota commission had made his presentation, wherein he described the situation with respect to various specific country elevators; and their financial difficulties arising from their inability to ship grain and thereby continue the normal process of liquidating their outstanding loans and other obligations. Mr. Larkin stated that he had on the previous day accepted Mr. Upson's invitation to discuss the matter, adding "I've heard a lot of soap-soapers, but never heard anyone to equal this fellow." He nevertheless called the W. F. A. people "honest" in that they said frankly they were going to keep the cars going into Canada if they could.

When Mr. Larkin was comparing some of his own figures on the turn-around time of cars going to Canada with those given the previous day by A. A. R. Vice-President Buford, Senator Reed broke in to say, "I didn't think any more of Buford's testimony than you folks do." Mr. Larkin went along, saying, "Well, we didn't think much of it."

1943 Export Traffic

Railroads handled "without serious congestion" in 1943 the greatest volume of export freight traffic on record, according to the Association of American Railroads. Export traffic is moving freely through the various ports, all of which are in a completely "liquid" condition, the statement added.

Cars of export freight, excluding grain and coal, unloaded at all ports in this country in 1943 totaled 1,401,186 compared with 893,576 cars in 1942, or an increase of 67 per cent, and an increase of 147 per cent above that handled in 1940 in which year it amounted to 568,303 cars. Approximately 4,000 cars were unloaded daily in 1943 compared with 2,616 in 1942 and 2,235 in 1940.

The number of cars unloaded at North Atlantic ports in 1943 was more than 75 per cent greater than the number handled in 1918 in the first World War. Due to the fact that the average tonnage per car in 1943 was considerably more than it was in 1918, the volume of tonnage was even greater than indicated by the increase in the number of carloads.

Export grain unloaded at all ports in 1943 totaled 53,204 cars compared with 30,315 cars in 1942, or an increase of 76 per cent. Coastwise freight unloaded at all ports in the past year totaled 7,333 cars, compared with 30,951 cars in 1942, or a decrease of 76 per cent.

The character of freight handled at the various ports has materially changed in recent years, nearly 96 per cent in 1943 having been export freight, except for coal and grain, compared with 69 per cent in 1940. Coastal freight moving through the ports accounted for only one half of one per cent in the past year compared with 26 per cent four years ago.

There were 128,358 cars of export freight, excluding coal and grain, handled through United States ports in December, compared with 75,091 cars in December, 1942, or an increase of 71 per cent. Export grain unloaded at the ports totaled 5,770, compared with 2,195 in December, 1942, or an increase of 163 per cent. In addition, the railroads handled 936 carloads of coastal freight in December, 1943, compared with 722 in the same month in 1942, or an increase of 30 per cent.

O. D. T. Booklet on Campaign to Improve Car Utilization

The Office of Defense Transportation has issued a booklet explaining the current drive of its War Transportation Efficiency Committee for an improvement of 10 per cent in freight car utilization.

The eight-page booklet, printed in color, is entitled "Getting Over the Hump—A War Job for Railroads and Shippers." It contains a statement by Joseph B. Eastman, O. D. T. director, and chairman of the committee, together with 44 suggestions on how the railroads and the shippers and receivers of freight can team up to meet the coming crisis in rail transportation. A statement by Maj. Gen. Charles P. Gross, Chief of Transportation of the U. S. Army, is also included.

In his statement, General Gross declares: "The time when our armed forces are making favorable progress is the very time when we must strike the enemy harder and still harder. That requires greater and more intensive effort here on the home front. Transportation plays an indispensable part in preparation of the blows to be delivered against the enemy. The critical months before us will bring more difficulties than we have had to shoulder up to now."

Mr. Eastman's statement says:

"The months ahead will be an extremely

critical period for transportation. The railroads are confronted with growing manpower shortages, a tightening car supply situation, the operating difficulties that accompany severe winter weather, and the other stresses and strains produced by war conditions. The freight load, moreover, is still increasing, and it is possible that an added volume of highway traffic will have to be diverted to the rails.

"The job before us cannot be accomplished by the individual efforts of a few railroad men or a few industrial traffic managers. But it can be accomplished through the continuing and coordinated efforts of everyone concerned with rail transportation. If railroad officers and employees, industrial executives and workers, and the Government agencies get behind the campaign and pull together, the desired results will be achieved."

Copies of the booklet may be obtained without charge from the Office of Information, Office of Defense Transportation, Washington 25, D. C.

1943 Ton-Miles 13.7 Per Cent Above 1942

Railroads in 1943 handled the greatest volume of freight traffic, measured in ton-miles of revenue freight, for any year on record, according to the Association of American Railroads. In that year it amounted to approximately 725,447,456,000 revenue ton-miles, according to preliminary estimates based on reports received from Class I roads. This was an increase of 13.7 per cent compared with 1942, and an increase of 53 per cent compared with 1941. The volume of freight traffic carried by the railroads in 1943 was an increase of 118 per cent compared with 1939.

For the month of December, 1943, alone, the railroads handled about eight per cent more ton-miles of revenue freight than in the same month of 1942.

The following table summarizes revenue ton-mile statistics for the twelve months of 1943 and 1942:

	1943	1942	Per Cent Increase
10 months	606,572,456,000	526,054,986,000	15.3
November *a*	59,575,000,000	56,958,793,000	4.6
December *b*	59,300,000,000	55,030,990,000	7.8
12 months	725,447,456,000	638,044,769,000	13.7

a Revised estimate
b Preliminary estimate

O. P. A. Raises Ceiling Prices on Freight Car Castings

An upward adjustment of 17 per cent in the ceiling prices for miscellaneous freight car castings to compensate for increased production costs, principally labor, has been authorized by the Office of Price Administration.

Around 60,000 new freight cars, 20,000 for domestic use and 40,000 for foreign needs of the War Department and for lend-lease requirements, are to be constructed in the first six months of 1944, O. P. A. said. Because of increased cost of production, the higher prices for miscellaneous freight car castings are necessary for unimpeded production, the price agency added.

The increase is the only upward adjustment in prices for the castings since ceilings were established in November, 1941 at the levels prevailing in July of that year.

The following other changes in pricing provisions for steel castings and railroad specialties also were announced: (1) Uniform extras now are established for machining principal freight car castings required in this year's railroad rolling stock construction program; establishment of uniform extras, to replace the previously existing varied extras, brings no overall net change in ceiling prices for these extras. (2) Increases of 10 per cent in maximum prices for high tensile steel bolsters and 11 per cent for rigid yokes, are established to match increases previously authorized in ceilings for Grade B steel bolsters and rigid yokes. (3) Extras of 80 cents per bolster are established for bolsters made for use on the ASF (American Steel Foundry) Ride Control A-3 trucks, and for Railway Truck Corporation Snub-up bolsters. (4) In another pricing change, ceiling prices for steel castings now are specifically made applicable to two or more steel castings which are welded together, also steel castings which have parts made of other materials cast integrally in them. (5) Increases ranging up to 10 per cent are established for a number of other castings for rolling stock items, including locomotive cab turrets, locomotive frame ends and frame rails. Purpose of these actions is to bring ceilings for these items into conformity with higher prices previously authorized for related cast items.

Materials and Prices

The following is a digest of orders and notices of interest to railways issued by the War Production Board and the Office of Price Administration since December 29:

Cast Iron Boilers—Production of cast-iron boilers during 1944 equal to 100 per cent of the number produced in 1940 was provided for today by the War Production Board in an amendment to the cast-iron boiler order, L-187.

The revised order places the quota allowance for 1944 production on a quarterly basis. Each manufacturer may produce during each quarter 25 per cent of the low pressure cast-iron boilers that he manufactured in the whole year of 1940. However, the provision is made that any producer may exceed this quota if he obtains permission from the WPB. Quota assignments include production for all purposes.

Direction No. 1 PR 18 Revoked—Direction No. 1 of Priorities Regulation 18, which required the early placement of purchase orders for specified items of a critical nature on which delivery is required during 1944, was revoked on December 29, by the WPB. The Direction had been in effect since November 19, 1943, and was issued to encourage the early placement of orders for certain component parts, and thus assure a more efficient control, scheduling and production of stipulated products—chiefly those for automotive transportation products.

Excess Material—Priorities Regulation No. 13, governing special sales of idle and excess materials, has been revised, in order that all regulations issued prior to December 22, shall have no effect on redistribution of such materials, the WPB announced on December 24.

To find the rules governing a special sale of idle or excess materials, there is no need to refer to any order or regulation other than Priorities Regulation No. 13, except for aircraft inventory transfers and special sales in the petroleum industry. However, orders issued after December 22, which may specially indicate that PR-13 has no effect shall govern special sales of items which they may cover.

Galvanized Products—Direction 1 to Limitation Order L-30-a grants each manufacturer of galvanized pails and buckets, wash tubs, wash boilers, funnels, fire shovels, and storage cans for petroleum products for the first quarter of 1944, a supplementary quota of iron and steel, which brings his total permitted rate of usage to 92½ per cent of the average quarterly usage in the year ending June 30, 1941. Whether production actually will reach the permitted rate, however, will depend upon the availability of raw materials.

Intercommunicating Systems—Under the ruling given in Interpretation No. 8 to PR No. 3 blanket MRO ratings may be used to add stations to an existing wire intercommunicating system to bring it to its designed capacity, the WPB announced January 6. An intraplant telephone system would be an example of such a wire intercommunicating system. Thus, if an intercommunicating system is designed for 16 stations, and only 12 stations have been installed, four stations may be added by use of blanket MRO ratings. However, any expansion beyond the 16 stations, or any enlargement of the designed capacity or any expansion of it, may not be obtained by use of blanket MRO ratings, since use of these ratings for obtaining electronic intercommunicating systems or wire systems is prohibited under PR No. 3.

Steel Drums—Limitation Order L-197, as amended, and issued on December 27, tightens restrictions on steel drums. Under the amended order, products are classified in three categories. Those in the first category cannot be shipped in steel drums; those in the second category cannot be shipped in new steel drums. Those in the third category can be shipped in new drums only when authorized by WPB, but may be shipped in used drums.

Prices

Crude Petroleum—Amendment No. 6 to MPR No. 436 (Crude Petroleum, Petroleum and Natural Gas) effective January 12, provides upward ceiling price adjustments ranging from two to 15 cts. a barrel, for crude oil produced in specific fields in Arkansas, Louisiana, and Michigan.

The adjustments were authorized, OPA said, because previous ceilings in the fields were out of line with prices of comparable crude oils in the same areas, or because operations at the old levels were being conducted at a loss.

The rises, OPA said, will not result in any increase in the cost of living because the purchasers of the crude petroleum have either agreed to absorb the increases or are able to absorb the increases.

Ready-Mixed Paints—Amendment No. 1 to Order No. 465 Under Section 1499.158 of MPR No. 188 (Manufacturers' Maximum Prices for Specified Building Materials and Consumers' Goods Other than Apparel) effective December 31, provides that certain ready mixed interior and exterior paints, with changed formulae necessitated by limitation of amounts of linseed oil used in their production, may continue to be priced by manufacturers for an indefinite period at present maximum prices.

Refractories—Amendment No. 23 to Order A-1 Under Section 1499.159b of MPR No. 188 (Manufacturers' Maximum Prices for Specified Building Materials and Consumers' Goods Other than Apparel) effective January 7, provides a specific pricing method for certain essential refractory products, including fireclay, super duty fireclay, high alumina, silica, and insulating refractory shapes.

This action authorizes manufacturers to determine maximum prices by use of the formula or method of calculation used in March, 1942, and by employing the same cost factors (labor, cost of materials, and overhead), and margin of return that were in effect during that period. Manufacturers will also extend the same price differentials, discounts or other allowances that were established and in use during March, 1942. Prices established under the new action will be basically the same as those now used by OPA in each instance of application for a maximum price for each particular item, shape and size.

Softwood Lumber — Amendment No. 1 to RMPR No. 215 (Distribution Yard Sales of Softwood) effective January 11, provides that lumber distribution yards re-manufacturing Douglas fir, true fir and Western hemlock plank and timbers into smaller-sized boards and dimension lumber, may calculate their ceiling prices for the remanufactured products by adding remanufacturing milling charges to maximum prices and inbound freight costs for the original size material.

News Department continued on next left-hand page

Performance is the PAY-OFF!

No railroad can wring more miles out of a locomotive than its builder has packed into it. Lima-built locomotives give you the superior performance, the extra stamina and greater mileage that flow directly from Lima's insistence upon the highest standards of design, workmanship, and materials.

The economic superiority of the steam locomotive has never been better demonstrated than by the remarkable record it has set in its speeding of the heaviest wartime traffic. In the current performance of Lima-built Modern Steam Locomotives will be found countless examples of what can actually be expected from steam power at its best.

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GENERAL NEWS

Crew at Fault in Accident on A.C.L.

Commission finds Rennert, N.C., collision result of laxity in flagging

In its report of its investigation of the Atlantic Coast Line accident near Rennert, N. C., on December 16, 1943, the Interstate Commerce Commission found that it was "caused by failure to provide adequate protection for derailed cars which fouled an adjacent main track." The circumstances of the accident, in which 72 passengers were killed and 160 passengers and 27 employees were injured, were reported in *Railway Age* of December 25, 1943, page 1015.

The Derailment — Actually two accidents were involved. The first, which occurred about 12:50 a.m., affected southbound passenger train No. 91, the "Tamiami Champion (West Coast)." This train consisted of a 3-unit diesel-electric locomotive and 18 passenger train cars of steel construction. While traveling about 85 m.p.h. on tangent track on a 0.42 per cent ascending grade, in territory where the authorized maximum speed was 90 m.p.h., the three rear cars of this train were derailed to the left, became separated from the rest of the train, and came to rest in an upright position, but with the two rear cars fouling the adjacent northbound main track. The derailed cars came to a stop some 1,300 ft. beyond the point of derailment. The rest of the train was brought to a halt by the application of the emergency brakes with its rear end about 2,600 ft. south of the front end of the derailed cars.

The track in this section consisted of 100-lb. rail, fully tie-plated, single-spiked, provided with 4-hole angle bars and an average of 4 rail anchors per rail length, laid in 1937 on 24 treated ties per rail length and ballasted with crushed stone. Trains were operated by timetable, train orders, and an automatic block signal and automatic train stop system. The last automatic signal passed by No. 91 displayed proceed.

A Transverse Fissure—The commission's investigation, conducted under the supervision of Commissioner Patterson, disclosed that the derailment was caused by a rail breaking under the train. This rail was broken into many pieces, of which 64 were recovered. It was found that the derailment occurred at one of three breaks that resulted from transverse fissures, none of which had progressed to the outer surface. The other breaks apparently resulted during the derailment. This section of track had been inspected from a motor car on December 13, three days before the accident, and no defective condition was observed. A detector car had been operated over the track in this vicinity on October 17, or about 2 months prior to the accident.

The report describes incidents after the derailment in considerable detail. "When No. 91 stopped," it says, "the enginemen were in the control compartment of the first diesel-electric unit, the baggageman and the train porter were in the fourth car, the conductor was in the thirteenth car and the flagman was in the rear car. The first they were aware of anything being wrong was when the brakes became applied in emergency.

The Rear Was Protected—"Immediately after the derailment occurred the flagman observed that the rear three cars were detached from the train and that the rear two cars fouled the northward main track. He placed a lighted 10-min. fusee in front of the most southward car, and gave signals with a lighted white lantern to indicate to the other members of the crew that the train had parted. A passenger questioned the flagman about providing protection on the northward main track and he informed the passenger that a member of the crew on the front end of the train would furnish proper protection. Then the flagman proceeded northward to furnish flag protection," and did halt a following freight train.

"The conductor said that when his train stopped he immediately looked toward the rear and saw a lighted fusee, but did not see any signals being given by the flagman nor lighted marker lamps at the rear end of his train." He and the other members of the crew on the forward portion of the train thought their train was intact, and that the emergency stop had been caused by a separation between the second and third cars resulting from a broken coupler knuckle. "Soon afterward he saw a member of the crew proceeding southward with a lighted red lantern, and he assumed that proper flag protection was being furnished on the northward main track south of the front end of his train," and proceeded, with other members of the crew, to recouple the forward segments of the train.

Forgot His Torpedoes—"The engineer said that soon after the train stopped he instructed the fireman to provide flag protection on the northward main track," and then went about replacing the broken knuckle. "The fireman said that soon after his train stopped he proceeded southward to provide flag protection on the northward main track. He had a lighted white lantern and a lighted red lantern and one fusee, but he forgot to take a supply of

(*Continued on page 259*)

Court Upholds I.C.C. on Big Truck Merger

Says anti-trust and railroad-banker phases were given due consideration

The Supreme Court this week upheld Interstate Commerce Commission orders authorizing the consolidation of seven large trucking companies into the Associated Transport, Inc., system which operates along the Atlantic seaboard from Maine to Florida and serves also communities as far west as Cleveland, Ohio, Nashville, Tenn., and New Orleans, La. The court's action, affirming the judgment of the U. S. District Court for the Southern District of New York, came in a seven-to-two decision in McLean Trucking Company, Inc., the Secretary of Agriculture of the United States, et al., vs. the United States of America, Interstate Commerce Commission, et al., the majority opinion being delivered by Justice Rutledge, while Justices Douglas and Black joined in a dissenting expression written by the former.

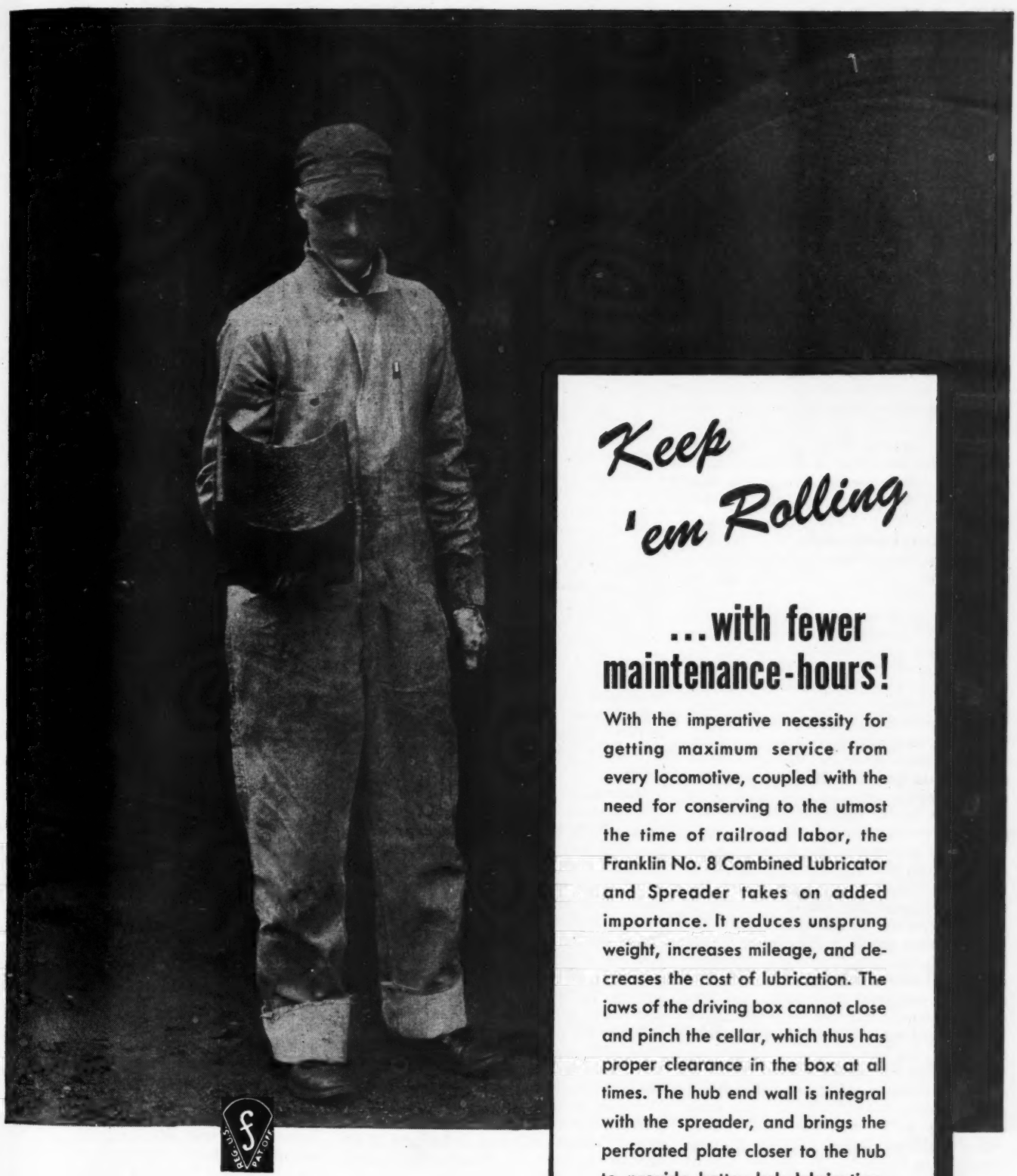
Any Railroad Affiliation?—The principal issues related to whether the commission in approving the merger had failed to give due weight to the prohibitions and policies of the anti-trust laws; and whether within the meaning of section 5(2)(b) of the Interstate Commerce Act it rightly could determine that Associated, upon consummation of the merger, would not be affiliated with any railroad.

Section 5(2)(b) is that provision which stipulates that when railroads or their affiliates are involved in motor carrier acquisition cases there must be a special showing that the proposed transaction will enable the railroad "to use service by motor vehicle to public advantage in its operations and will not unduly restrain competition." The allegation that Associated would be a railroad affiliate was based on the financial interest of Kuhn, Loeb & Co., which was identified as an investment banker having relationships with rail carriers competing with Associated and representatives on the boards of directors of other railroads.

No Help from Justice Dept.—The I.C.C. got no help from the Department of Justice in defending its order before the court; for the Department's Anti-Trust Division had joined the Secretary of Agriculture in opposing the merger. As the majority opinion put it, "The United States confessed error."

Disposing first of the contention that the commission had not given due consideration

(*Continued on page 258*)



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...with fewer maintenance-hours!

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T.P.&W. Strikers Win in High Court

Injunction granted in error—"Every reasonable effort" to settle was not made

Before a federal court can enjoin striking railway employees from interfering with interstate commerce by violence or threats of violence, it must first be shown that the road has exhausted "every reasonable effort" to settle the dispute under the "reasonable and available" procedures of the Railway Labor Act, the Supreme Court of the United States has ruled in a unanimous opinion, delivered by Justice Rutledge, in the cast of the *Brotherhood of Railroad Trainmen* vs. *Toledo, Peoria & Western.*

The circumstances leading up to this litigation grew out of the strike that led to that road's seizure by the government for operation by the Office of Defense Transportation. The sequence of events was summarized by Justice Rutledge in this fashion:

Mediation Unsuccessful — "Negotiations between the parties, beginning in October, 1940, failed. A long course of mediation, with the aid of the National Mediation Board, resulted likewise. Accordingly, on November 7, 1941, the mediator proposed arbitration pursuant to the Railway Labor Act's provisions. Both parties refused. Thereupon, as the act requires, the board terminated its services. This occurred November 21, 1941. Under the statute, no change in rates of pay, rules, working conditions or established practices can be made for thirty days, unless in that time the parties agree to arbitration or an emergency board is created under section 10."

With the expectation that the road would put into effect its proposed pay schedules at the expiration of the 30-day period, the opinion continued, the employees voted to strike December 9. However, after the Pearl Harbor attack on December 7, the board again intervened, urging a settlement in view of the national emergency. The employees postponed their strike, and further conferences followed. On December 17, the board again urged arbitration under the statute, and "this time the employees accepted." The management did not, "though it also continued to urge the appointment of an emergency board." There was some uncertainty as to when the road became aware of the employees' willingness to arbitrate. On December 21, at any rate, it served notice that the new rates would be put in effect on December 29, whereupon the employees called a strike for the preceding day, which took effect on schedule, with the road meanwhile again declining the board's arbitration proposal, but asking that an emergency board be appointed.

"Picket lines were formed," the opinion continues. The road undertook to operate with other employees, protecting its property with "special agents," of whom there were 29 as compared to about 100 strikers. "Clashes" took place between these agents and the working employees, on the one hand, and the strikers, on the other, and "various incidents involving violence or threats of violence took place. Some resulted in personal attacks, others in damage to property and interruption of service," whereupon the road "sought the aid of public authorities, including the sheriffs of counties along its right of way and police authorities in cities and towns which it served."

Police Protection Inadequate—Some assistance was offered, but in some instances the authorities replied they had forces inadequate to supply the aid requested and in others no reply was given. "The parties are at odds," said Justice Rutledge, "concerning the extent of the violence, the need for public protection, and the adequacy of what was supplied or available. But the findings of the district court are that the violence was substantial and the protection supplied by the public officials was inadequate." These "incidents" took place until an ex parte restraining order was issued January 3, 1942, pending hearings on an application for a temporary injunction, which was issued later.

The case reached the Supreme Court on three issues arising out of the injunction: (1) the jurisdiction of the federal court, since there was said to be no federal question involved; (2) the showing that the protection furnished by the public authorities was inadequate; and (3) the road's "reasonable effort" to reach a settlement, as required by the Norris-LaGuardia act, section 8 of which provides that no injunction shall be issued in a labor dispute where the petitioner has failed to make "every reasonable effort" to exhaust all governmental machinery of mediation or arbitration. Without passing on the first two points, the court based its opinion on the third.

Norris-LaGuardia Act — Discussing this question, the opinion pointed out that "it is wholly inconsistent with the section's language and purpose to construe it, . . . to require reasonable effort by only one conciliatory device when others are available. The explicit terms demand *'every* reasonable effort' to settle the dispute. Three modes are specified." While the Norris-LaGuardia Act did not "entirely abolish judicial power" in labor controversies, "it sought to make injunction a last line of defense, available not only after other legally required methods, but after all reasonable methods as well, have been tried and found wanting," said Justice Rutledge. Such application of the Norris-LaGuardia Act does not leave the road without remedy, opinion added. "Suits for recovery of damages still may be brought in the federal courts. . . . Federal statutes supply criminal sanctions, enforceable in the federal courts, against persons who interfere in specified ways with the operation of interstate trains or destroy the property of interstate railroads."

The road complied with the requirements of section 8 and of the Railway Labor Act "in all but the one essential respect, ... the final and crucial step of arbitration," the court held in summation. In expressing no opinion on the other important issues presented to it in the case, the court pointed out that "some are of such importance they should not be decided in advance of necessity for determining them. That necessity is not present in this case."

Survey of Year by Bureau of Safety

Slight rise is noted in ratio of defective equipment—Slow on AB Brake

WASHINGTON, D. C.

The annual report of Director S. N. Mills of the Interstate Commerce Commission's Bureau of Safety for the fiscal year ended June 30, 1943, is a 39-page document setting forth in the usual form the results of inspection of safety-appliance equipment on railroads together with information on the hours-of-service records of employees, installations of signaling facilities, investigation of accidents, and other activities of the Bureau.

During the year under review a total of 1,377,088 cars and locomotives was inspected, and 38,808 or 2.82 per cent were found defective, as compared with 2.58 per cent defective out of 1,221,039 inspected during fiscal 1942. Included in the rolling stock inspected during fiscal 1943 were 33,969 passenger-train cars, of which 860 or 2.53 per cent were found with defective safety appliances, 1,140 defects being reported.

Defective Brakes in Trains—Air-brake tests were made on 3,559 trains, consisting of 161,166 cars, prepared for departure from terminals; and air brakes were found operative on 160,993, or 99.58 per cent of these cars. This percentage, however, was attained only after 1,574 cars having defective brakes had been set out, and repairs had been made to the brakes on 2,053 cars remaining in the trains. "These trains," the report emphasizes, "had been prepared for departure; yet, when afterward tested by our inspectors, it was necessary to set out or to repair the brakes on an average of one car per train."

Similar tests on 1,801 trains arriving at terminals with 89,905 cars showed that the air brakes were operative on 98.02 per cent of the cars. Cars with inoperative brakes averaged approximately one per train.

The report recalls the mention made in its three predecessors of the "use by certain carriers of devices designed to make lock blocks of tightlock couplers inoperative, to compensate for defects in the coupler which were productive of undesired separation of trains"; and of "improper running boards on steam locomotives and incorrect end and side handholds on steam and Diesel-electric locomotives." It goes on to say that "modified designs of tightlock couplers to avoid accidental separations are undergoing tests," while "progress in correction of improper safety appliances on locomotives has been made."

Slow Progress on AB Brake—Commenting on the program for equipping cars with AB brakes, the report notes that "during 8½ years, or 85 per cent of the 10-year period allotted for making this improvement, only 39 per cent of the freight cars in interchange service have been equipped with the present standard air-brake apparatus." Breakdown of the figures shows that 42.2 per cent of the railroad-owned cars were equipped as of June 30, but only 21.2

News Department continued on next left-hand page

BETTER COMBUSTION

for modern freight locomotives through the application of

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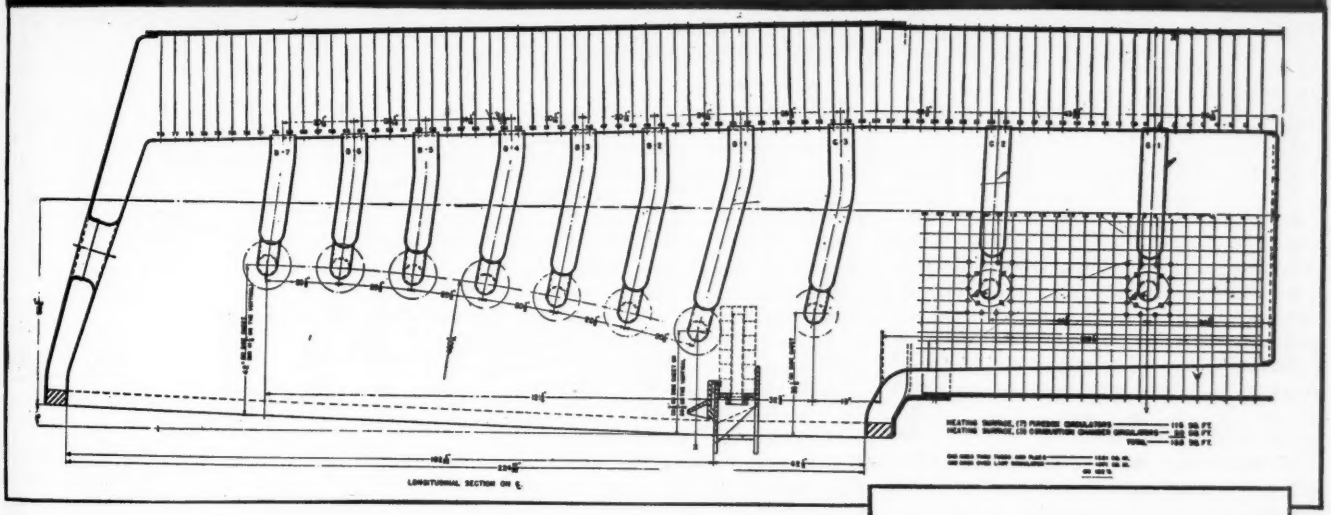

The problem of supporting brick arches has been effectively solved by the Security Circulator, a development of the American Arch Company.

In addition, many other benefits have accrued. Positive flow of water over CENTER of crown sheet is assured. Reduction of honeycombing, flue plugging, and cinder cutting lessens the maintenance of the boiler. The Security Circulator itself is extremely low in maintenance cost.

On the Security Circulators that have been installed during the last nine years, performance has been thoroughly proved by over 60,000,000 locomotive miles of service.

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SECURITY CIRCULATOR DIVISION

per cent of the cars owned by private car lines. "Under the stress of wartime traffic conditions," the report says, "it is particularly important that the advantages of this improved equipment should be made fully available as rapidly as possible."

At the close of the fiscal year, 65,080 covered freight cars had been equipped with metallic running boards of various types, for purposes of investigation and tests, as permitted by orders of the commission. The bureau has inspected such running boards on 5,294 cars.

"Hog Law" Catches More—During fiscal 1943, 230 of the 730 railroads filing hours-of-service reports reported a total of 55,084 instances of all classes of excess service—an increase of 40,804 instances as compared with the previous year. "Wartime measures and conditions" was the principal cause of employees remaining on duty longer than 16 consecutive hours.

As of January 1, 1943, there were 112,458 miles of road (145,251 miles of track) equipped with automatic block signals. On the same date there were 4,460 interlockings in operation, and 10,635 miles of road (20,563 miles of track) equipped with automatic train-stop, train-control, and cab-signal devices.

Cases for Prosecution—Alleged violations of the safety appliance laws in 185 cases comprising 411 counts were transmitted to United States attorneys during the year; also, 60 cases comprising 446 counts alleging violations of the hours-of-service law. One case of violation of the accident-reports act, comprising 10 counts, covering failure of a carrier to make reports of accidents to employees, was filed during the year and was disposed of by payment of a fine of $1,000. On June 30, 1943, there were pending in various courts 123 safety appliance cases containing 309 counts and 33 hours-of-service cases containing 344 counts.

The report's section on the bureau's accident-investigation work shows that during the fiscal year under review the commission received reports of 4,786 collisions and 8,090 derailments. In these, 259 persons were killed and 3,118 injured. The discussion of accidents also includes the same comment as was included in the I. C. C. annual report with respect to the need for more installations of block signals: and the same suggestion that "many accidents would undoubtedly be avoided if the urge to keep trains moving was not permitted to take precedence over safety." The I. C. C. report was reviewed in the *Railway Age* of January 16, page 198.

Would Authorize Increase in Chicago Commutation Fares

Examiner William A. Disque has recommended in a proposed report that the Interstate Commerce Commission discontinue its investigation of Chicago district commutation fares with a finding that the railroads have justified a 20 per cent increase in the rates between points in the Chicago district and points in Wisconsin, Indiana, and Michigan. The proceeding, No. 28974, grew out of the commission's action revoking the Ex Parte 148 increases in commutation fares with a finding that they should be investigated further, and it was heard jointly with a related intrastate-fare proceeding of the Illinois Commerce Commission.

Examiner Disque's conclusion was set forth in the proposed report as follows: "The record establishes that the commuters, riding as they are at fares so much below those charged other passengers for similar service and generally on trains that are operated at great loss to the carriers, are not paying their fair share of the transportation costs. The commission should find that a 20 per cent increase would not put respondents' commutation fares . . . above reasonable maximum levels. No order is necessary, except one discontinuing the proceeding."

Red Caps Lose Again in Court

By refusing a rehearing in the so-called St. Paul redcap case, the Supreme Court of the United States apparently has finally disposed of this litigation, arising from the National Mediation Board's refusal to recognize these station porters as a separate class of employees for purposes of negotiation with employers under the Railway Labor Act.

The case had come to the Supreme Court on the contention that the board had erred in not finding the porters a class separate from the clerks, freight handlers, and station employees with which they were represented. The case further involved the claim that the clerks' brotherhood, designated to represent the porters among other station employees, did not admit the porters to full membership on account of alleged race discrimination. Justice Rutledge expressed the opinion that the court should hear a reargument of the case. As reported in *Railway Age* of December 11, page 948, the court had disposed of the case once before, with the same effect through a per curiam action without a formal decision.

I. C. Uses Sandwich Wagons at Three Stations

A platform sandwich service has been placed in operation at three stations on the Illinois Central to supplement regular dining car accommodations which are now taxed to capacity. At Jackson, Miss., Fulton, Ky., and Champaign, Ill., mobile units loaded with sandwiches, fruit, doughnuts and soft drinks, are moved onto the platform when trains arrive to serve patrons who care to disembark. At the same time, attendants with trays serve those on the train. In addition, the forces at these points prepare sandwiches for dining cars and sell to persons in the waiting rooms. The plan was developed by N. L. Patterson,* superintendent of dining service.

The service is available during periods of heavy traffic. The one at Jackson is in operation 18 hours a day and serves 10 trains daily; that at Fulton is in operation 21 hours a day and serves 13 trains; and that at Champaign is in operation 16 hours a day and serves 7 trains. The three stations sell a daily aggregate of 270 loaves of bread, 47 meat loaves, 12 bricks of cheese and 68 gallons of coffee. In addition they sell sandwich spread, fruit and doughnuts.

The food is prepared in kitchens that have been equipped with counters, refrigerators, electric slicing machines, gas heaters, coffee urns and lockers. Because of the lack of space in the station at Jackson, a store was rented across from the station. At Fulton, a one-room building north of the present commissary was remodeled. At Champaign a vacant room at the south end of the passenger station was equipped.

The mobile units were built at the company's Burnside shops in Chicago. Each unit is mounted on inflated rubber tires.

Freight Car Loading

Loadings of revenue freight for the week ended January 15 totaled 780,220 cars, the Association of American Railroads announced on January 20. This was an increase of 17,221 cars or 2.3 per cent above the preceding week, an increase of 24,722 cars or 3.3 per cent above the corresponding week last year, and a decrease of 31,107 cars or 3.8 per cent below the comparable 1942 week.

Loading of revenue freight for the week ended January 8 totaled 762,999 cars, and the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, January 8			
District	1943	1942	1941
Eastern	147,830	138,626	154,082
Allegheny	166,392	150,803	161,968
Pocahontas	55,880	50,970	50,236
Southern	117,790	114,820	117,339
Northwestern	88,964	79,827	85,465
Central Western	120,616	114,552	115,830
Southwestern	65,527	67,578	52,052
Total Western Districts	275,107	261,957	253,347
Total All Roads	762,999	717,176	736,972
Commodities			
Grain and grain products	54,711	48,391	35,842
Live stock	17,148	15,559	15,939
Coal	177,441	157,080	166,184
Coke	14,992	15,367	14,223
Forest products	37,548	37,135	35,031
Ore	14,821	14,723	11,818
Merchandise l.c.l.	99,995	85,507	139,844
Miscellaneous	346,343	343,414	318,091
January 8	762,999	717,176	736,972
January 1	643,474	621,173	676,534
December 25	641,368	591,471	606,502
December 18	759,288	743,061	798,868
December 11	823,211	744,183	807,225
Cumulative total 2 Weeks	1,406,473	1,338,349	1,413,506

In Canada.—Car loadings for the week ended January 8 totaled 61,489 compared with 48,598 cars for the previous week (which contained the holiday on January 1) and 56,717 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Jan. 8, 1944	61,489	33,419
Jan. 1, 1944	48,598	33,158
Dec. 25, 1943	51,898	37,157
Jan. 9, 1943	56,717	30,555
Cumulative Totals for Canada:		
Jan. 8, 1944	61,489	33,419
Jan. 9, 1943	56,717	30,555
Jan. 10, 1942	56,642	25,728

Northwest Board Meeting

The sixty-eighth regular and twenty-first annual meeting of the Northwest Shippers Advisory Board will be held at Minneapolis, Minn., on January 27. The exceptionally heavy movement of grain, which is expected to continue, and the grain car supply,

News Department continued on next left-hand page

Factors

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will be given special consideration. In addition, the heavy movement of potatoes in refrigerator cars and coal in box and open-top cars will be discussed. The guest speaker at the luncheon meeting will be Charles Layng, transportation editor of the *Railway Age* and transportation expert of the War division of the U. S. Department of Justice, whose subject will be Axis Transportation.

Need State and O. D. T. Assent for New Truck Runs

Operators of "for hire" commercial vehicles seeking Office of Defense Transportation authority either to institute a new service or to extend present operations must first secure approval of interested regulatory bodies, the O. D. T. recently pointed out. This requirement, it was said, is in conformity with the policy that applications for Certificates of War Necessity, or for extension of operations thereunder, filed after October 25, 1943, must first have been cleared by state or municipal authorities having jurisdiction. Applications must make a clear showing that the operation in question is "necessary to the war effort or to the maintenance of essential civilian economy."

This wartime test is much more stringent than the requirements of most regulatory bodies in the cases of applications for certificates of public convenience and necessity, it was explained, and the policy of some state commissions of requiring applicants for temporary or permanent motor carrier authorizations to secure approval of the O. D. T. before action will be taken by the state is in conflict with the policy outlined in instructions to its field organization.

It was pointed out that applications for approval to extend or inaugurate new services should not be confused with applications for Certificates of War Necessity. A carrier who is a certificate holder may choose to extend his routes or to serve a territory not served by him on October 25, 1943. An approval of the proposed extension or new service is required, but a Certificate of War Necessity is not needed, as he already has one.

In the case of one who has not operated commercial vehicles prior to October 25, 1943, and now elects to do so, it is necessary that two proceedings be undertaken: One to procure a Certificate of War Necessity and the other for approval of the proposed new operation, it was said.

High Court Upholds Jury Action in Liability Case

On the ground that it could not say that the jury's conclusion that the railroad was negligent in the death of an employee was without support in the evidence, the Supreme Court of the United States on January 17 reversed the federal Circuit Court of Appeals in an employers' liability case, so rejecting the claim that negligence could not properly be found in the absence of witnesses to the accident or of definite knowledge of the way it occurred.

The case was *Tennant* vs. *Peoria & Pekin Union*. It grew out of the death of an experienced yard switchman, who was killed while going about his regular duties, presumably by being struck by the train operated by the crew to which he belonged. This crew was engaged in regular yard switching activities at night, and at the time of the accident the diesel-electric switching locomotive was moving in reverse, drawing a cut of some 20 cars out of a yard track, after having stood for several minutes awaiting a signal. Evidence was lacking as to exactly how the accident occurred, and several "possibilities suggested by diligent counsel" were referred to, but the majority view was that "it is not the function of a court to search the record for conflicting circumstantial evidence in order to take the case away from the jury on a theory that the proof gives equal support to inconsistent and uncertain inferences."

With Justices Stone and Roberts of the opinion that the appellate court's judgment should have been affirmed, and with Justices Frankfurter and Jackson separately concurring in the result, the majority opinion was delivered by Justice Murphy, who indicated sympathy with the contention that the engine bell should have been sounded before the train moved, as required by one of the road's rules, and at the same time disagreed with the appellate court's view that lack of eye witnesses to the accident constituted lack of evidence that failure to give warning of the train movement by ringing the bell was the proximate cause of the employee's death.

Schleifer Appointed to O. D. T.

Fred A. Schleifer, traffic manager of the Franklin County Coal Corporation, Chicago, and formerly general chairman of the Mid-West Shippers Advisory Board, has been appointed associate director of the division of Railway Transport, Office of Defense Transportation, with headquarters at Washington, D. C.

Senate Hearing on Rogers and Eastman Appointments

A practitioner before the Interstate Commerce Commission—E. Adamson—was the only person appearing in opposition to confirmation of President Roosevelt's reappointment of Commissioner John L. Rogers at the opening session of this week's hearings before the Senate committee on interstate commerce. The reappointment to the commission of Director Joseph B. Eastman of the Office of Defense Transportation was also before the committee, but no opposition to Mr. Eastman appeared.

Mr. Adamson blamed Commissioner Rogers for the commission's delay in disposing of pending proceedings involving applications of Allied Van Lines, Inc., for a certificate under the Motor Carrier Act's "grandfather" clause covering operations as a motor carrier of household goods throughout the country. The case has been pending since 1936, but Allied has meanwhile filed an application for approval of a pooling plan among its 362 trucking-company members, and has proposed to withdraw the "grandfather" application if the pooling plan is approved.

Mr. Adamson is opposed to Allied's "grandfather" application, and he pointed out that the delay has had the effect of permitting Allied to continue operating just as though it obtained a favorable decision on the application. He assigned responsibility for the delay to Mr. Rogers, as the commissioner whom he thought had been in charge of the matter, being the one to whom the Bureau of Motor Carriers reports. Later testimony was to the effect that Commissioner Lee is now the chairman of Division 5 which handles motor carrier applications for operating rights.

In the end Mr. Adamson did not take a position in opposition to eventual confirmation of Mr. Rogers. He thought that the committee's action might well be "deferred" at least until it was known what happened after next week's Chicago hearings on Allied's pooling application. Mr. Adamson had "no criticism" of Mr. Eastman, who "is very sincere and under all circumstances has done as well as he could."

Rogers Has Many Friends—All others appearing at the hearing favored Mr. Rogers' confirmation. They included Leo Kitchen, Jacksonville, Fla., attorney; Rolland Rice, general counsel of American Trucking Associations, Inc.; J. Ninian Beall, Washington attorney and former A.T.A. general counsel; John T. Corbett, assistant grand chief engineer and national legislative representative of the Brotherhood of Locomotive Engineers; Martin H. Miller, national legislative representative of the Brotherhood of Railroad Trainmen; Luther M. Walter, chairman of a special committee of the Association of Interstate Commerce Commission practitioners; Wilbur LaRoe, Jr., Washington attorney and former president of the practitioners association; Joseph C. Colquitt, chairman of the Washington Chapter of the practitioners; John E. Benton, general solicitor of the National Association of Railroad and Utility Commissioners; Walter R. MacDonald, chairman of the Georgia Public Service Commission; Fred A. Tobin of the International Brotherhood of Teamsters; and J. R. Turney, counsel for Allied and former director of the Division of Traffic Movement, O.D.T.

Chairman Wheeler of the committee was particularly interested in why the Allied case had been pending for eight years. He could see "no excuse for proceedings pending so long." Such delay, he said, is "one of the reasons why courts and commissions are criticized." And he told the practitioners present that it was not in the public interest for "you lawyers" to drag cases out. Later on it was suggested that the I.C.C., though "vulnerable" on the Allied case delay was nevertheless "one of the finest administrative agencies" which others try to emulate. Whereupon Chairman Wheeler broke in to say, "I wish more did emulate it."

The opening session of the hearing was held on January 19, after which a recess was taken until January 21.

Tennessee-Tombigbee in Again

The House committee on rivers and harbors last week approved an omnibus rivers and harbors bill carrying authorizations for projects estimated to cost a total of $420,675,396. The bill—H.R. 3961—was introduced by the committee's chairman, Representative Mansfield, Democrat of Texas.

Included among the projects it would au-

thorize is the $66,000,000 Tennessee-Tombigbee waterway, the committee having reversed itself in reconsidering its previous adverse vote on that proposal.

Santa Fe Passenger Trains Collide

Seven persons were killed and 40 were injured when an extra passenger train of the Atchison, Topeka & Santa Fe, carrying four coaches to Camp Barkley at Abilene, Tex., ran into the rear of a westbound passenger train standing in the station at Novice, Tex., on January 13. The approach to Novice is on a curve and in open country but because of a heavy snowstorm the engineman was unable to see the train in the station. He made his first application of brakes when he came upon the fusee planted by the brakeman of the first train and made a further application after rounding the curve, but was unable to stop the train before it struck the one ahead. Most of those killed were in a chair car on the first train which car was telescoped by a dining car behind.

Ragsdale Sees Need for 15,000 New Coaches

Predicting that the railroads "will face a postwar passenger business larger than they have ever experienced," Colonel E. J. W. Ragsdale, chief engineer, railway division, Edward G. Budd Manufacturing Company, believes the carriers will require "at least 15,000 new passenger cars" to accommodate their prospective traffic. Colonel Ragsdale made this statement in an address on "Advanced Passenger Car Design" to the Southern and Southwestern Railway Club, Atlanta, Ga., on January 20.

Colonel Ragsdale outlined design considerations, the use of stress calculations, and methods developed in the aircraft industry and modified to meet railroad conditions. Continuing, he said in part:

"The railroads have as big a postwar travel market as they care to make it. It only requires merchandising and that is a profession we've learned something about during the decade of the streamliner. The formula calls for finding out what the public wants and giving it to them—in an attractive package. That we were headed in the right direction to accomplish this is proved by the record of the Pioneer Zephyr which the Budd Company built for the Burlington in 1934. That train, nearing its tenth birthday and its 2,000,000th mile of operation, has paid for itself six times over and established a precedent which can guide us in the development of the trains of the future.

"One phase of the railroad's bid for postwar travel will be the increased number of all-coach trains. The percentage of occupancy will be high and that is a far more important issue than is that of first cost or the expense of operation. With the Armistice signed, this new public will immediately want to get rid of rationing, restrictions and discomforts endured patiently during an emergency. It's going to want luxury for a change. The sooner the railroads can accommodate themselves to this desire the greater will be their postwar business.

"There are those who expect the postwar train to look like a superman's dream of streamline design and embodying the use of presently little-known materials, such as new plastics. These hopes will bring only disappointments. The radical changes of design have happened. They had already simmered down to the improvement stage when we got into the war. This improvement will continue. As to new materials, there will be new price structures and new capacities for old materials but no radical switching or substitutions. It is not going to be a plastic world.

"Aviation has had the benefit of magnificent research, both in regard to air behavior as well as to structural sufficiency. Car building, on the other hand, has grown up the hard way, so to speak. After a hundred or more years of building railroad cars, the first laboratory for the testing of a complete railroad car was built in 1940. It is still the only one in the world. Yet good railway cars have been built and nowhere are they built better than in the United States.

"When Budd built its first light weight stainless steel car, ordinary passenger cars weighed as much as 160,000 lb. In 1932 they averaged only twelve passengers per coach, which meant over 13,000 lb. of car per passenger. Naturally, this was uneconomical. To meet this problem, it was necessary to cut the car weight and put more passengers in it. New and stronger alloys made the first possible while streamlining did the rest."

Wallace "Experts" on Southern Freight Rates

Removal of "discriminatory freight rates which handicap southern business men who seek to sell in national markets" is one of the measures "essential to assure the full development of a balanced economy in the South," according to Vice-President Henry A. Wallace. He told it to the Southern Governors' Conference at a meeting in Washington, D. C., on January 17.

As the vice-president sees the situation, freight rates are not alone responsible for "economic backwardness in the South." The section is also "discriminated against by state trade barriers"; its industries suffer from lack of capital, "capital being withheld because the expansion of southern enterprise would compete with other businesses in which the bankers are already interested"; and where southern industry has developed it is handicapped by "absentee ownership."

Mr. Wallace advised the governors to "join forces with like-minded leaders in other sections of the country" in support of "national measures," for no solution of regional problems "is sound which does not promote an expanding national income and an equitable distribution of that income." What the vice-president had to say about freight rates was as follows:

"Free access to national markets requires the removal of discriminatory freight rates which handicap southern businessmen who seek to sell in national markets. Whatever the historic origin of the country's freight-rate structure, there is no doubt that its perpetuation, through private rate bureaus and private rate-making conferences, effectively stifles the expansion of southern industry. I have urged that this private rate-making machinery be stripped of its power to continue its monopolistic pricing of transportation services and that the Interstate Commerce Commission should protect the public interest in accordance with the direction of Congress."

Washington activities of the governors included a visit to the White House, from which they returned with the impression that President Roosevelt was in sympathy with their position on freight rates. They also made public a declaration, signed by the 11 governors, 28 senators and 89 members of the House, which favored "equality of freight rates on manufactured and processed products wherever transportation conditions, including cost of service, will permit."

Carriers May Now Advance Charges to Forwarders

In a second report on further consideration of the Freight Forwarding Investigation (No. 27365), the Interstate Commerce Commission has modified previous findings to permit rail and motor carriers to advance published charges of freight forwarders subject to Part IV of the Interstate Commerce Act prior to their collection from the consignee.

The majority report by Commissioner Porter bases the changed commission attitude on the fact that forwarders have been brought under regulation since the time of the prior finding which held it to be unlawful for the carriers to advance the forwarder charges. Commissioner Patterson, dissenting, did not think the enactment of Part IV changed the situation, and Commissioners Lee and Johnson agreed with him. Commissioner Aitchison did not participate in the further consideration of the proceeding.

Halt "Made Work" Before We Conscript Labor

"Let's drop 'Made Work' on railroads and cut government payrolls before we adopt forced labor," Phil S. Hanna of the "Chicago Sun" recommended in an address at the "Forward America" dinner of the Traffic Club of Chicago on January 13. "President Roosevelt's demand for a national service act," he continued, "gets much support from those who have refused to be realistic about the effect of continuing peacetime labor policies into more than two years of war. But, in my opinion, the greatest contribution that can be made toward a solution is to get right down to the realities about the sufficiency of America's manpower and whether the supposed shortage is real or apparent.

"We do not know whether there is an actual shortage because we have not been willing to find out the number of manpower hours that could be thrown into the breach if we suspended the 40-hour week. Nor have we tried to find out how many more workers could be made available for essential wartime services if the large number of 'stand-by,' 'make work' and 'featherbed' jobs over the nation were abolished for the duration. Reprehensible as strikes are in wartime, their effect in reducing produc-

News Department continued on second left-hand page

MISSOURI PACIFIC LINES

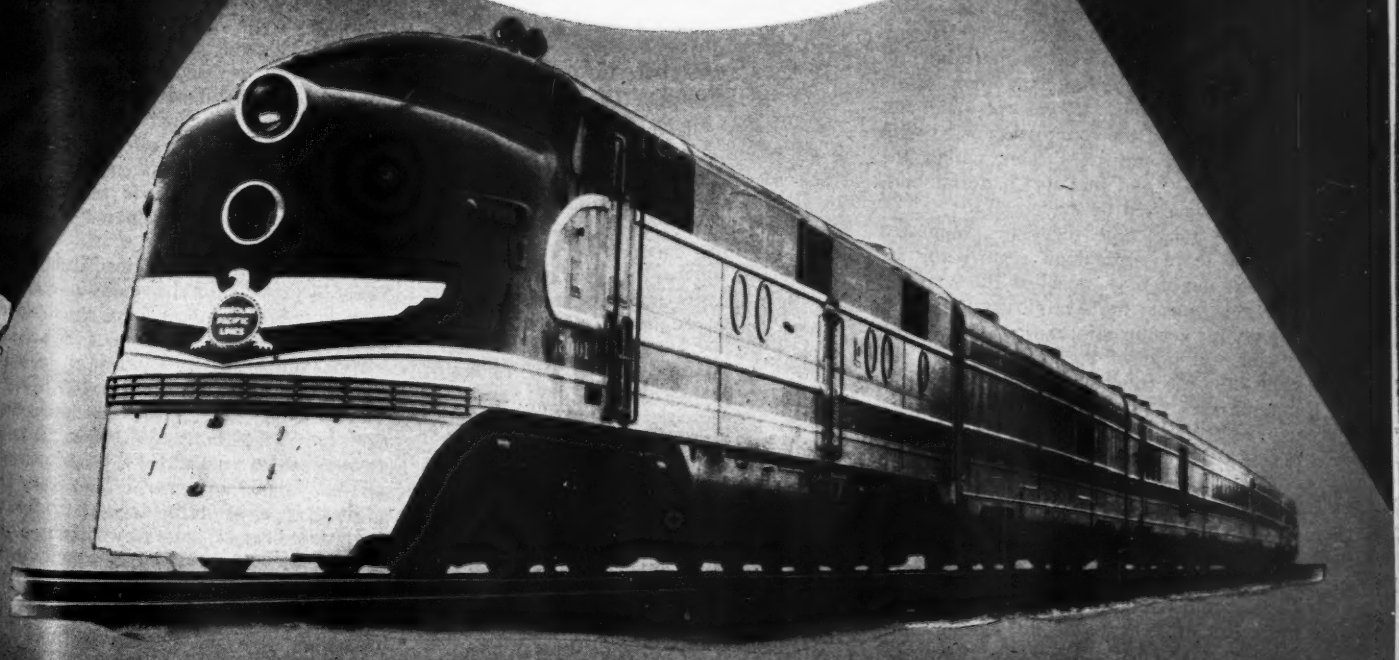
GENERAL MOTORS LOCOMOTIVES

LET'S ALL BACK THE ATTACK — BUY MORE WAR BONDS

Another Triple
GM DIESEL SERVICE

MISSOURI PACIFIC LINES motive power has recently been materially strengthened by the addition of two General Motors 5400 Hp. Diesel Freight Locomotives, with more to follow. These locomotives combine speed for faster schedules, power for greater tonnage capacity, adaptability to varying operating conditions, high availability with fewer stops for fuel, water and servicing. Sturdy, efficient and dependable, GM Freight Diesels have what it takes to meet the exacting transportation demands of war and peace.

Having already definitely proved the superior service and operating economies of GM Diesel Switchers and Passenger Locomotives, the Missouri Pacific Lines now joins the fast growing group of railroads using GM Diesel Triple Service — Freight — Passenger — Switcher.



ELECTRO-MOTIVE DIVISION
GENERAL MOTORS CORPORATION — LA GRANGE, ILLINOIS

tion probably isn't a drop in the bucket compared with the increase in production that could be had if needless jobs were eliminated and workers put in more hours.

"The people have seen the civilian arm of the government exceed the 3,000,000 mark. They have had before them many reminders that the government itself has not seemed to be aware of a labor shortage. Hence it is not surprising that the total wartime effort at home has been below par.

"Some steps have been taken in the right direction. The Office of Defense Transportation did abolish train-length limits which were imposed during peace to force the roads to employ more men. But, generally speaking, a multitude of 'make work' rules have been operating as usual, with the result that in manpower supply, as in certain commodities, there is scarcity amid plenty.

"To cite a specific case: Hundreds of Diesel switch engines built for one-man operation still carry a 'fireman.' In most cases those 'firemen' are experienced locomotive operators. They could be operating engines and thus release several thousand new engine employees for war work or for the military."

Atlanta Transportation Club Elects Officers

Officers of the Transportation Club of Atlanta, Ga., for 1944, who were installed at a dinner, January 7, include: President, George W. Leyhe (traffic manager, Armour Fertilizer Co.); 1st vice-president, Claude G. Smith (traffic manager, Atlantic States Motor Lines); 2nd vice-president, J. A. Howell (traffic manager, Sears, Roebuck & Co.); railroad directors, C. T. Love (Nashville, Chattanooga & St. Louis); and C. D. Santor (Delaware, Lackawanna & Western).

Court Upholds I.C.C. on Big Truck Merger

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to the anti-trust laws, the court held that provisions of the Interstate Commerce Act give the commission considerable leeway in that connection, even though they do not permit the commission to ignore anti-trust considerations. It was the judgment of the court that the commission acted with respect to the anti-trust laws within the leeway it has; and that its "material findings are supported by evidence."

At the same time the court suggested that "a more meticulous regard for its function might have impelled the commission to accede to the Anti-Trust Division's request for certain information . . . bearing on the question of competition." At the same time the court did not think that the commission's failure to do so "requires, on this record, that its conclusions be overturned."

Kuhn, Loeb's Interest—Coming to the railroad-affiliate phase, the court pointed out that this aspect had changed since the proceeding left the commission for the courts. The elimination of Arrow Carrier Corporation from the consolidation had the effect of reducing Kuhn, Loeb's interest in Associated. Transport Company, which is owned by the banking house, now has 9,000 shares of Associated's 1,000,000 shares of common stock; had Arrow been included, Transport Company, which had an option to purchase Arrow's common stock, would have emerged as the holder of 67,167 shares of Associated's common.

Aside from the "proportionately small" stock ownership which Transport Company finally obtained in Associated, and Kuhn Loeb's representation on the latter's board of directors, the court pointed out that the commission "found no connection—either in origins of the present proposal or in personnel, financing or otherwise—between Kuhn, Loeb & Co. and the rail carriers on the one hand and Associated on the other." It added: "We cannot find anything arbitrary or unreasonable in the conclusion that the consolidation as finally authorized will not result in Associated's being affiliated with a carrier by rail."

Douglas Fears "Cartel"—The dissenting opinion expressed agreement with the contention of appellants that the commission was bound to accede to the policies of the anti-trust laws except in cases where a proposed consolidation of competing carriers would provide "adequate" transportation facilities where they were previously "inadequate." As Justice Douglas put it, "the occasions for the exercise of the administrative authority to grant exemptions from the anti-trust laws should be closely confined to those where the transportation need is clear." He said later on that if any other view prevails, "a pattern of consolidation will have been approved which will allow the cartel rather than the competitive system to dominate this field."

The dissenters also thought that the railroad-affiliate phase of the case required a reversal of the lower court. "The whole history of finance," Justice Douglas said, "urges caution when one investment banker stakes out his claim to two competing companies. Experience shows that when one gains a seat at his competitor's table, it is the beginning of the end of competition. A new zone of influence has been created. Its efficacy turns not on the amount of stock ownership but on a host of subtle and imponderable considerations."

I. C. C.'s Grandfather Clause Order Is Reversed

A railroad offering motor truck service as an integral part of its coordinated rail-truck service before the date determining its grandfather clause rights is entitled to such rights even though the truck operations were then conducted not by the road itself with its own equipment but under contract, according to an opinion of the United States Supreme Court announced January 17.

This decision, reversing the Interstate Commerce Commission, was delivered by Justice Murphy for the court's majority. Justice Jackson expressed the opinion that the lower court's judgment, upholding the commission, should be affirmed; while Justice Douglas, with Justice Black concurring, presented a dissenting opinion to the same effect.

Who Gets the Certificate?—The case before the court—*Thomson* vs. *United States*—grew out of a petition of the Chicago & North Western's trustee to set aside an I. C. C. order denying it a grandfather clause certificate as to certain services on the ground that it did not perform the truck operations, but contracted with others for the service, which they performed as common carriers in their own right.

As reported in *Railway Age* of December 13, 1941, page 1011, the commission, with Commissioner Eastman dissenting, had denied the road's application with respect to trucking services between certain points in Illinois, Iowa, Wisconsin, Nebraska, Michigan, and South Dakota, where contract operations were involved. As the resulting court proceedings developed the operations were continued. After the lower court had upheld the commission, that body had ordered the road to cease such truck operations by April 1, 1943, but a stay was obtained from the district court pending the appeal to the Supreme Court.

The essential difference in the conclusion of the court and the commission on the undisputed facts was in whether the grandfather clause certificate should be issued to the actual truck operator or to the railroad for which the operations were performed along with other independent services of the truck operator. Previous rulings of the court were to the effect that "Congress did not intend to grant multiple grandfather rights on the basis of a single transportation service." Justice Murphy suggested that the commission had erred in its application of the facts that "only one certificate can be granted on the basis of a single transportation service," and that the common carrier entitled to the certificate is "the one who exercises direction and control of the motor vehicle operations and assumes full responsibility therefor both to shippers and the general public."

Complements Rail Service.—The majority of the court held that the "undisputed facts" were, in this case, "that only the railroad holds itself out to the general public to engage in a single complete freight transportation service to and from all points on its lines," as an integral part of which a motor truck service is provided between certain stations which is "completely synchronized with the rail service and has none of the elements of an independent service offered on behalf of the motor vehicle operators." These operations, it went on to say, are offered by the railroad, not as separate segments, but as component parts of its single service, which may be replaced or eliminated at the sole discretion of the road.

Furthermore, said Justice Murphy, the road, in providing this single co-ordinated service, is not acting as a freight broker or forwarder, but has rigid control over the movement of the freight and retains full responsibility to the shippers. "By any realistic test," he said, the truck operators "are mere aids in carrying out a part of the railroad's co-ordinated rail-motor freight service"; they "issue no billing of any kind and solicit none of the freight transported for the railroad"; and they "have no contractual or other relationships with either the shippers or the receivers of the freight."

Douglas Dissents — Justice Douglas, dissenting, took the position that the "con-

trol and responsibility test" is a fair measure of grandfather rights. Since there was "concededly sufficient evidence" to support the commission's findings in this respect, he would have affirmed the lower court's finding upholding the commission. "One who arranges for another to do some hauling for him may or may not enter the hauling business," he pointed out. He could "see no other way to effectuate the congressional policy of preserving through the grandfather clause the position which motor vehicle operators 'struggled to obtain in our national transportation system'" than to "allow those rights to follow ownership of the enterprise."

Boiler Makers to Meet in September

The Master Boiler Makers' Association will hold an annual business meeting the third week of September at the Hotel Sherman, Chicago.

N. Y. Traffic Club to Meet January 25

The immediate transportation outlook will be discussed at the regular monthly meeting of the Traffic Club of New York, to be held at 8 p. m., January 25, in the Grand Ballroom of the Hotel Biltmore.

The speakers will be: Henry F. McCarthy, director, Division of Traffic Movement, Office of Defense Transportation, Washington, D. C.; L. M. Betts, manager, Railroad Relations section, Car Service Division, Association of American Railroads; and Charles W. Braden, chairman, Public Affairs committee, The Traffic Club of New York.

Crew at Fault in A.C.L. Accident

(*Continued from page 253*)

torpedoes," though both fusees and torpedoes were available on the engine. "When he saw the reflection of the headlight of a train approaching from the south he was about 100 ft. south of the front end of his train. He immediately attempted to light the fusee, but, because of snow on the ballast, he slipped and fell and broke the fusee in such a manner that it could not be ignited." He then gave stop signals with his red lantern, but the northbound train passed him at a speed of about 85 m.p.h. without giving any evidence that his lantern signals had been seen.

The northbound train was No. 8, the "Tamiami Champion (East Coast)," which was made up of a 3-unit diesel-electric locomotive and 16 passenger train cars of steel construction. Its headlight was lighted brightly and the enginemen were maintaining a lookout ahead. They first saw the reflection of No. 91's headlight when about 4 miles distant. When only a few hundred feet south of the front end of the standing train they observed a stationary red light, but observed no warning signals until after they had passed the front end of No. 91, when they discovered the derailed cars and saw stop signals ahead, which were given by a passenger of the derailed train, who had procured a marker light from the rear car. The last automatic signal they passed had displayed proceed.

Fatalities in Coaches—The engineer of the northbound train was unable to stop it in time to avert a collision with the cars fouling the northward track, and No. 8 struck those cars at about 1:30 a.m., while moving at about 80 m.p.h. The locomotive and the first eight cars of No. 8 were derailed to the right by the collision. The second and third cars, both of which were coaches, were demolished, and the locomotive and most of the other derailed cars were somewhat damaged. One fatality occurred in the rear car of No. 91 as a result of the collision, while most of the fatalities occurred in the second and third cars of No. 8.

In its discussion of the accident the report points out that "the operating rules of this carrier provide that when a train is stopped suddenly and the cause is not definitely known, adjacent tracks that might be obstructed must be protected at once in both directions until it is ascertained that they are safe and clear for movement of trains." Forty minutes elapsed between the derailment and the collision, and "this period afforded ample time in which to provide flag protection in both directions. Flag protection was furnished at the rear end of this train by the flagman, but the fireman failed to provide himself with torpedoes and a sufficient supply of fusees with which to furnish adequate protection," the report adds. The applicable rule provided that the fireman or head brakeman should provide protection under such circumstances, and another rule required the engineman to see that the fireman performed this duty promptly.

Why Protection Was Faulty—Continuing its discussion, the report said, "the commission has received many suggestions for the use of various devices to provide protection for trains" under the conditions that prevailed in this case, including "a two-way radio system," an arrangement to shunt the track circuit of the adjacent track so that restrictive automatic signal aspects would be displayed, and rockets. These suggestions, the report continues, were based on the assumption that the crew of No. 91 knew that the rear portion of their train was fouling the other track, but the flagman actually was the only member of the crew who knew this, and he was required to go to the rear "immediately" to protect his train.

"If the members of the crew at the front end had at once provided adequate flag protection and had then made a thorough inspection of their train, as was necessary under the conditions at the time the train stopped, they would have learned that the two rear cars were obstructing the other track and that further flag protection was required. However, the employees on the forward portion of the train assumed the separation between the second and third cars to be the only condition that caused the emergency application of the brakes.

New Devices Not Needed—"The fireman did not provide himself with full flagging equipment, which would have been adequate to prevent the accident if used in accordance with the rules, and no other member of the crew gave adequate attention to the extent of the flag protection being provided," the report went on to say. "If any or all of the suggested devices had been provided, it is not probable any of them would have been used." If the members of the crew with the front end of No. 91 "had furnished proper flag protection and had made a thorough inspection of the train, the collision . . . could have been prevented."

Would Create Fair Employment Practice Commission

Representative Scanlon, Democrat of Pennsylvania, has introduced H.R. 3986 "to prohibit discrimination in employment because of race, creed, color, national origin, or ancestry." The proposed law would be administered by a Fair Employment Practice Commission, which would supplant the President's Committee on Fair Employment Practice.

It would apply to any employer of more than five persons who is engaged in interstate or foreign commerce, or who is a contractor or subcontractor on government work. Also, to any labor union which has five or more members in the employ of one or more of the covered employers.

Would Have I. C. C. Drop Probe of Rates on Autos

Discontinuance of the No. 28190 proceeding involving rail, highway, and water rates on new automobiles has been recommended to the Interstate Commerce Commission in a proposed report by Examiners William A. Disque and H. C. Lawton. They would have the commission find that the rates, charges, rules, regulations, and practices have not been shown to be unlawful.

"In reaching this conclusion," the proposed report continues, "a number of factors have been considered. The rates are generally compensatory; the carriers have not generally gone further than necessary in meeting competition; the competition between the various transportation agencies has not generally had an unduly destructive effect upon the rate structure, but has merely afforded the public lower rates than would otherwise have obtained. Thus there is no reason for prescribing reasonable minimum rates. If further reductions are later proposed they can be considered in individual proceedings. . . .

"The traffic is such that it can reasonably bear a relatively high proportion of the transportation burden, and rates are charged which reflect this consideration, except where competition requires lower rates. The rates do not exceed reasonable maxima. . . .

Few Rates Unduly Low—"There are strong indications that a few sporadic rates are below reasonable minima, but no positive and definite findings respecting them for the future are here warranted, because there will be no traffic in new automobiles for quite a while and because some of the facts of record, for instance the traffic study for 1938 and the cost figures for 1939, are too old to afford a safe guide for the postwar period. The carriers in their own as well as the public interest should carefully study their rates and proceed to correct, before the traffic again begins to move, any

of them that appear unlawful. The tariff provisions of the motor carriers, respecting rules, regulations, and practices ought to be clarified and made more complete and uniform. The record does not afford a basis for action in this respect by the commission."

In recommending discontinuance of the proceeding, the examiners suggest that "it might well be reopened later by the commission on its own motion in the event the carriers fail to heed the above admonitions." The proposed report occupies 87 mimeographed sheets, and in it there is much discussion of the cost studies prepared by the commission's Bureau of Transport Economics and Statistics.

The types of transportation of automobiles involved are by rail, in carloads, by truck-away, tow-bar, or drive-away methods, and by any of these methods in conjunction with water carriage. The investigation was launched by the commission in January, 1939, upon petition of the National Automobile Transporters Association. Most of the parties, "except the few that seek relief," asked that the proceeding be dismissed without a report or at least held in abeyance "for the duration."

Pullman Preparing to Meet Postwar Challenge

A post-war national transportation policy of equal opportunity for all carriers was advocated by George A. Kelly, vice-president of the Pullman Company, in an address before the Chicago chapter of the Railway & Locomotive Historical Society at Chicago on January 14. In the post-war period, he said, the Pullman Company will enter the spirited competition that is sure to develop, with sleeping car innovations that are calculated to hold a large portion of its heavy wartime passenger business.

"Other agencies of transportation," he said, "are planning to divert passenger traffic from the railroads after the war, but Pullman will be ready to meet this challenge. Some of this planning by other agencies is predicated on the assumption that these forms of transportation will continue to receive greatly augmented governmental subsidies." He added that a propaganda campaign is now being conducted along these lines to persuade Americans that certain transportation agencies should be favored.

"But it seems to me that it must and will be the intention of our people that our national transportation policy should be based upon equality of opportunity for all forms of transportation," he said. "Under such a policy, the public interest will be served and the common welfare promoted, for each form of transportation will find its proper economic station in our national economy and will function where it is best fitted to serve.

"Pullman's post-war sleeping car innovations are planned to broaden its travel market by offering low-cost berths at rates considerably lower than those now in force and private rooms with the latest comforts and conveniences for little if any more than the present cost of a lower berth," Mr. Kelly stated.

Reviewing the tremendous wartime accomplishments of the railroads and Pullman, Mr. Kelly stated that this job is being done with 15,000 fewer railroad day coaches than were in operation during the last war. After Pearl Harbor, the Pullman Company assigned 1,500 of its fleet of 7,000 mobile cars to the handling of military personnel, the speaker recalled. "Today nearly half of all Pullman sleeping cars are continuously engaged in the transportation of troops, a car being loaded with troops, on the average, every two minutes and 48 seconds, with an average of 30,000 troops moving and sleeping every night in these cars," he added.

Since the United States entered the war 17,000,000 troops have been transported in Pullman cars in organized movements, according to Mr. Kelly. "This," he said, "is just double the total of 8,714,582 troops carried in railroad coaches and Pullman cars combined during the entire period of World War I. In the last war only about one fourth of the troops traveled in Pullman cars, but today 66 per cent of all troops are transported in sleeping cars."

Another contribution to the war effort cited by the speaker was the operation by the Pullman Company of triple-deck troop sleepers for transporting service men, 732 of which are already in service. "A total of 1,200 of these cars have been ordered and the rest are being placed in service as fast as they are built," Mr. Kelly said.

"The company also has converted a number of Pullman sleeping, parlor and lounge cars into a fleet of air-conditioned hospital cars, each with a capacity of about 30 patients, for the U. S. Army," he added.

Air-Rail Shipments

The air express division of Railway Express Agency reports that air express shipments in combined air-rail service in November rose 29.5 per cent over November, 1942. There were 36,189 shipments handled in combination service as compared with 27,939 for the same period in 1942. Charges on this traffic rose 37.2 per cent.

For the period January-November, 1943, air-rail shipments increased 28 per cent, and charges were 67.4 per cent higher than for the same period in 1942.

Club Meetings

"Training, Education, Qualifications and Problems of the Present-Day Supervisor" is the topic to be discussed by L. W. Horning, vice-president, personnel, New York Central, at an 8 p. m. meeting of the Eastern Car Foreman's Association, February 11, in the Engineering Societies building, New York.

The New England Railroad Club will next meet February 8, 6:30 p. m., at the Hotel Vendome, Boston. Col. William G. Knight, mechanical superintendent, Bangor & Aroostook, will present a paper—"Military Railways in the Theatre of Army Operations."

Eastern Car Foremen Elect 1944 Officers

Members of the Eastern Car Foreman's Association elected the following to serve as officers during 1944, at a meeting held in New York on January 14:

President, B. F. Cordts, engineer, cars and shops, Independent division, New York City Transit System; first vice-president, K. H. Carpenter, superintendent car department, Delaware, Lackawanna & Western; second vice-president, F. H. Becherer, superintendent car department, Baltimore & Ohio; treasurer, T. G. Case, general car foreman, New York Central; and secretary, W. P. Dizard, American Car and Foundry Co.

These are the same officers who served during the year 1943. In addition, the following were elected to fill vacancies on the board of directors of the Association: W. N. Messimer, assistant superintendent of equipment, New York Central; W. P. Hollen, superintendent car department, Lehigh Valley; B. R. Jones, superintendent car maintenance, New York, New Haven & Hartford; and A. R. Green, supervisor car maintenance, New York, Ontario & Western.

Equipment and Supplies

Canadian Pacific Orders Cars and Locomotives

The Canadian Pacific has placed orders for 70 locomotives and 2,140 freight cars as follows:

25 freight locomotives, Montreal Locomotive Works.
45 freight locomotives, Canadian Locomotive Co.
140 refrigerator cars, 50 tons capacity, National Steel Car Co.
500 gondola cars, National Steel Car Co.
300 hopper cars, National Steel Car Co.
100 hopper cars, Canadian Car & Foundry Co.
1000 box cars, Canadian Car & Foundry Co.
100 coal cars, Eastern ar Co.

FREIGHT CARS

The CANADIAN PACIFIC has placed orders for 140 overhead refrigerator cars of 50 tons' capacity and 400 triple-hopper cars of 70 tons' capacity, allocating the 140 refrigerator cars and 300 of the hopper cars to the National Steel Car Company and 100 of the hopper cars each to the Canadian Car & Foundry Co. and the Eastern Car Company.

Construction

READING.—This railroad has awarded a contract for the construction of culverts, grading the roadbed and laying track for the proposed extension of its Lakeside siding to Haucks, Pa., at estimated cost of $33,000, to Edward A. Daylor, Coatesville, Pa.

UNION PACIFIC.—This road has awarded a contract, amounting to approximately $75,000, to the Strand Electric Company, Salt Lake City, Utah, for the construction of a system pole line between Caliente, Nev., and Rox.

WESTERN PACIFIC.—This road has awarded a contract, amounting to approximately $50,000, to N. H. Bjoberg & Son, Oakland, Cal., for the construction of four additional stalls to its roundhouse at Elko, Nev.

Supply Trade

G. W. Dolan, executive vice-president of the **Mathieson Alkali Works,** has been elected president to succeed **E. M. Allen.** Mr. Allen will continue as chairman of the board of directors.

Carl L. Zak, since 1941 secretary of the Seamless Steel Tube Institute, Pittsburgh, Pa., has been appointed manager of tubular sales for the **Pittsburgh Steel Company.**

The Barberton plant of the **Babcock & Wilcox Co.** has been awarded a third star to add to its Army-Navy "E" pennant for continued achievement in war production.

Charles O. Guernsey, who has been serving in an administrative capacity with the Philadelphia, Pa., ordnance district for the past 20 months, has resumed his position as vice-president of the **J. G. Brill Company.**

W. C. Bergman, general manager of the Southwestern division of the **National Carloading Corporation,** with headquarters at Chicago, has been elected assistant vice-president of the Western division with headquarters at Chicago and will continue to supervise the company's St. Louis office.

W. C. Shull, assistant manager of account sales and divisional sales manager of the Depew, N. Y., office of the **National Battery Company,** has been appointed manager of National account sales to succeed **J. C. Hammond,** who has joined the **Franklin Transformer Manufacturing Company** as sales manager.

Herbert J. Rosen, operating manager of the **Griffin Wheel Company,** Chicago, has been elected vice-president. **Harry Hanson,** secretary and assistant treasurer has been elected treasurer to succeed

Herbert J. Rosen

Metzger D. Stimson, retired. Mr. Rosen entered the employ of the company at Denver, Colo. on July 1, 1900, and after holding various office positions, served as cashier at Chicago, Detroit, Mich. and Denver, Colo. during the period from 1906 to 1914. In the latter year he was made assistant to the chief engineer and in 1918 was appointed assistant superintendent of the Order division. Later that year he was made sales agent at Denver, which position he held until 1930 when he was promoted to assistant to the vice-president. In 1934 he was made operating manager, which position he held until his recent election.

Mr. Hanson entered the employ of the company as a clerk in 1903. He served as

Harry Hanson

cashier at Chicago and Denver from 1906 to 1909 and in the general sales department from the latter date to 1919. He was made secretary of the executive committee in 1920 and in 1931 was also made assistant secretary of the company. In 1934 he was promoted to assistant treasurer, which position he has held until his recent promotion.

The **American Car & Foundry Co.** has reported the recent development of a new design in passenger-car construction. The report was presented to members of the entire sales staff from all parts of the country who have been attending sales-engineering meetings held by the company for the purpose of planning its post-war activities.

John E. Fick, superintendent of the steel and tube division of the **Timken Roller Bearing Company,** Canton, Ohio, has been appointed vice-president in charge of that division, and **E. S. Hoopes, Jr.,** assistant general superintendent, has been appointed general superintendent. **A. M. Donze,** factory manager, has been appointed vice-president in charge of production, and **H. M. Richey,** assistant factory manager, has been promoted to factory manager.

OBITUARY

William H. Foster, for ten years railroad lubrication service engineer for the Socony-Vacuum Oil Company, died January 9. He was 70 years of age.

LOST ARTICLES on Katy trains and in its stations are auctioned twice yearly, with dealers submitting sealed bids on the entire lot. Every effort is made to locate the rightful owners prior to the sale of these articles. A recent auction included numerous hats, purses, vanity cases, cameras, a tennis racquet, two baby buggies, make-up bags, a complete baby-feeding kit, and—an artificial leg!

Financial

ALTON.—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for $3,675,000 of its first equipment trust certificates of 1944, sold, subject to the commission's approval, on a 2¾ per cent interest basis to Harris, Hall & Co. of Chicago, the proceeds to be employed in meeting 75 per cent of the cost of 1500 pieces of freight equipment.

CHESAPEAKE & OHIO-WHEELING & LAKE ERIE.—*Acquisition of Stock.*—In a supplemental report Division 4 of the Interstate Commerce Commission has authorized the Chesapeake & Ohio to acquire at a price not to exceed $105 per share certain outstanding shares of the prior lien stock of the Wheeling & Lake Erie. (Previous item in *Railway Age* of November 27, 1943, page 883.)

CHICAGO, INDIANAPOLIS & LOUISVILLE.—*Reorganization Plan.* — Certain minor changes in the Interstate Commerce Commission's modified plan for this road's reorganization have been made in a further supplemental report in its Finance Docket No. 10294 proceedings. These changes do not affect the distribution of securities, capitalization, or annual charges established by the modified plan, but relate to technical requirements affecting elections of directors under certain circumstances, the compensation of trustees for the new stock, the method to be followed in selecting these trustees, and certain provisions controlling the payment of annual contingent charges.

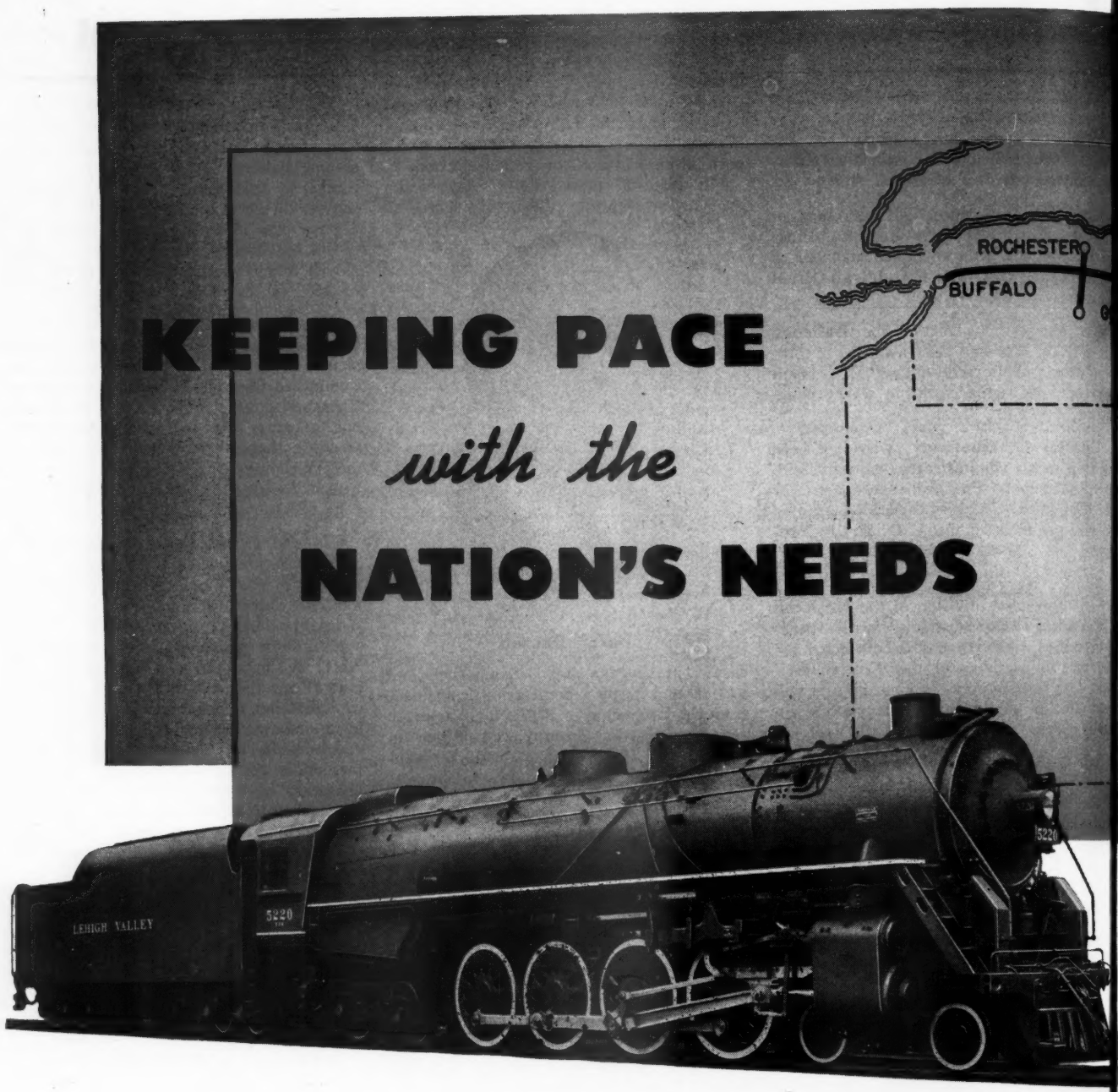
NEW YORK, NEW HAVEN & HARTFORD.—*Settles Bank Claims.*—The United States district court at New Haven, Conn., on January 18, authorized this railroad to pay $10,692,642 in settlement of claims of a group of seven banks involving $11,950,883 of principal and $521,720 of accrued interest.

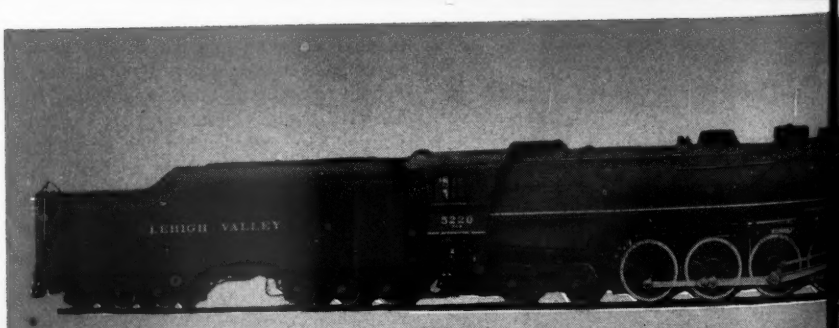
PENNSYVANIA.—*Awards Equipment Issue.*—The Pennsylvania has awarded, subject to Interstate Commerce Commission approval, $4,155,000 of 2½ per cent equipment trust certificates, series O, to Halsey, Stuart & Co. and associates at 100.739. The certificates will mature in 15 annual installments beginning February 1, 1945. Proceeds will be used to finance in part the construction and acquisition of 18 steam locomotives and 500 box cars, the total cost of which is estimated at about $5,200,000.

PERE MARQUETTE.—*Awards Equipment Issue.*—The Pere Marquette on January 18 awarded, subject to Interstate Commerce Commission approval, $2,220,000 of 2¼ per cent serial equipment trust certificates to Halsey, Stuart & Co. and associates at 99.69, an interest cost basis to the railroad of approximately 2.29 per cent. The certificates will mature in fifteen equal annual installments of $148,000 each beginning February 1, 1945. Proceeds will be used to finance in part the purchase of seven 2-8-4 type freight locomotives, with 22,000 gallon tenders, without boosters; five 2-8-4 freight locomotives, with 22,000 gallon

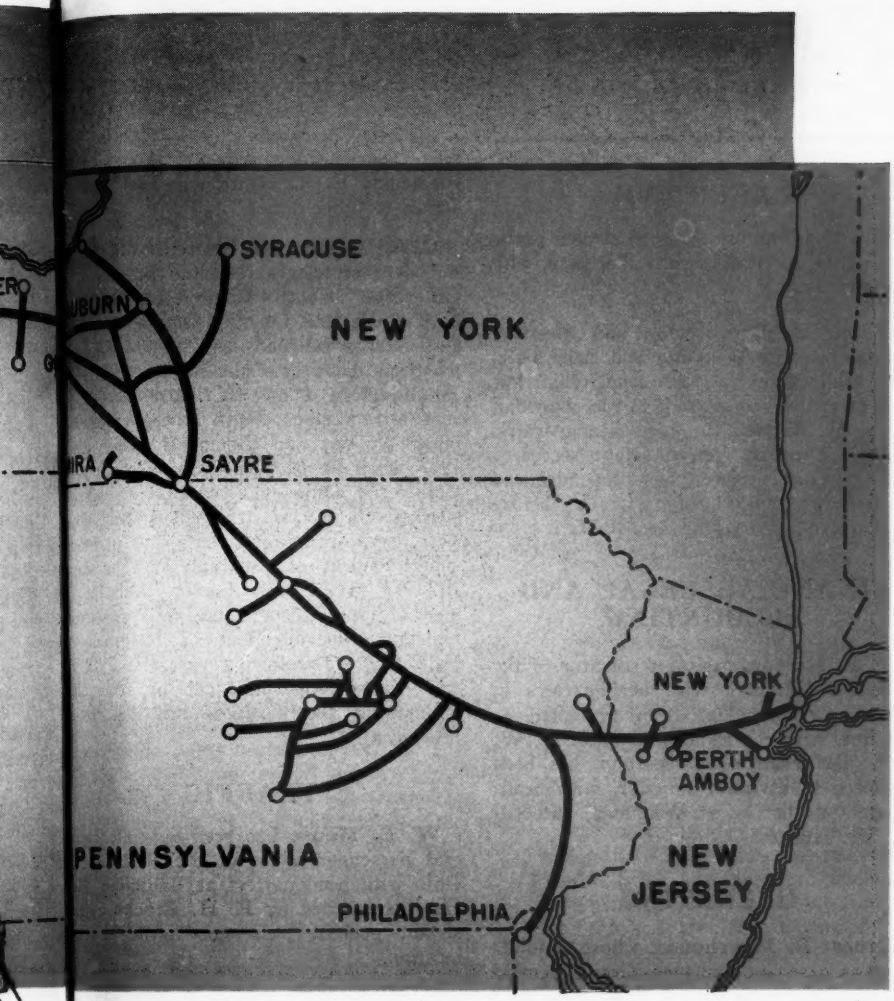
News Department continued on second left-hand page

KEEPING PACE
with the
NATION'S NEEDS





Buy War Bonds



First introduced on the Lehigh Valley in 1931 – duplicated several times since – designed to operate from Sayre, Pa., to Buffalo, N. Y.; from Buffalo to Jersey City, N. J.; and back to Sayre, and haul 3000-ton trains with a minimum of helper service.

Ten of these 4-8-4's were delivered to the Lehigh Valley by Alco in 1943.

Locomotive Characteristics

Weight on Drivers	274,500 Lb.	Boiler Pressure	255 Lb.
Weight of Engine	451,000 Lb.	Tractive Power with Booster	79,000 Lb.
Cylinders	26 x 32 Ins.	Tender Capacity—Water	20,000 Gals.
Diameter of Drivers	70 Ins.	Tender Capacity—Fuel	30 Tons

AMERICAN LOCOMOTIVE

MANUFACTURERS OF MOBILE POWER
STEAM, DIESEL AND ELECTRIC LOCOMOTIVES, MARINE DIESELS, TANKS,
GUN CARRIAGES & OTHER ORDNANCE

Alco

tenders, with boosters; 100 70-ton composite gondola cars and 100 70-ton composite flat cars. It is expected that the certificates will be re-offered at prices to yield from 0.90 to 2.50 per cent, according to maturity.

Average Prices Stocks and Bonds

	Jan. 18	Last week	Last year
Average price of 20 representative railway stocks..	37.16	36.51	29.40
Average price of 20 representative railway bonds..	83.06	82.52	70.08

Dividends Declared

Cleveland, Cincinnati, Chicago & St. Louis—$5.00, semi-annually; preferred, $1.25, quarterly; both payable January 31 to holders of record January 21.

Saratoga & Schenectady.—$2.00, irregular, payable January 15 to holders of record December 31, 1943.

Wheeling & Lake Erie.—5½% preferred, $1.37½, quarterly, payable February 1 to holders of record January 25.

Abandonments

ATCHISON, TOPEKA & SANTA FE.—Acting upon a petition of the Kansas Corporation Commission and various county commissions, the Interstate Commerce Commission has reopened its proceedings for reargument and reconsideration of its Division 4 order authorizing this road to abandon a segment of branch line from Virgil, Kans., to Benedict Junction, about 30 miles, and a segment from a point near Eureka, Kans., to Moline, about 34 miles. Pending this action, the effective date of the certificate therein has been indefinitely postponed.

CHICAGO & NORTH WESTERN.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon a branch from Winde, Mich., to Ladoga, 24.37 miles.

MISSOURI-KANSAS-TEXAS. — The Missouri-Kansas-Texas of Texas would be authorized by the Interstate Commerce Commission to abandon a line from Greenville, Tex., to Mineola, 54.21 miles, if the recommendation in a proposed report by Examiner Lucian Jordan is approved.

MISSOURI-KANSAS-TEXAS. — In a proposed report, Examiner J. S. Prichard has recommended that the Interstate Commerce Commission deny the application of this road's subsidiary, the Missouri-Kansas-Texas of Texas, for authority to abandon a branch from Smith, Tex., to Belton, 7 miles, without prejudice to a renewal of the application after the end of 1944.

NEW YORK CENTRAL.—The Interstate Commerce Commission has reopened on its own motion for rehearing and reconsideration its proceedings in this road's application for authority to abandon its electrically operated passenger line from Van Cortlandt Junction, N. Y., to Getty Square, in Yonkers, 3.1 miles. As reported in *Railway Age* of January 8, page 171, the Supreme Court held that the commission's order authorizing the abandonment should have been set aside by the court because it did not include a finding that the line involved was operated as a part of a general steam railroad system.

Railway Officers

EXECUTIVE

A. Trieschmann has been elected president of the Ashley, Drew & Northern, with headquarters at Crossett, Ark.

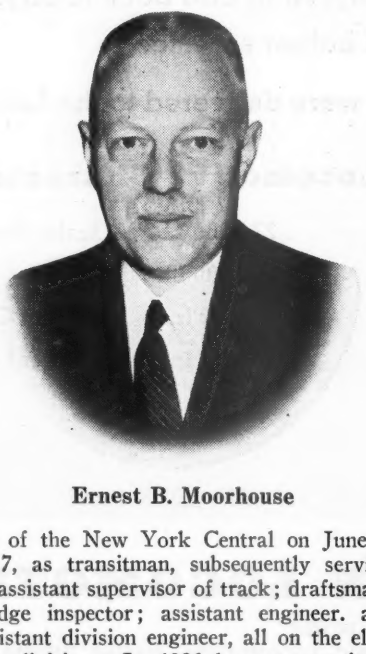
C. E. Bahl, secretary and assistant treasurer of the Wheeling and Lake Erie, with headquarters at Cleveland, Ohio, has been promoted to assistant to the chairman of the board, with the same headquarters. **W. M. Duncan, Jr.,** assistant secretary and assistant treasurer, has been advanced to secretary, with headquarters as before at Cleveland, succeeding Mr. Bahl.

FINANCIAL, LEGAL AND ACCOUNTING

H. F. Hutton, assistant solicitor of the Canadian National, with headquarters at Winnipeg, Man., has been promoted to solicitor, with the same headquarters. **W. J. B. Grierson,** legal assistant, has been advanced to assistant solicitor, with headquarters as before at Winnipeg, succeeding Mr. Hutton.

OPERATING

Ernest B. Moorhouse, whose appointment as assistant manager, Grand Central Terminal of the New York Central, at New York, was announced in the *Railway Age* of January 8, was born at Tarrytown, N. Y., on November 23, 1894. He was graduated from Columbia University in 1914 and did post-graduate work at New York University until 1917, receiving B.S. and B.S.C.E. degrees. Mr. Moorhouse entered the service of the New York Central on June 1, 1917, as transitman, subsequently serving as assistant supervisor of track; draftsman; bridge inspector; assistant engineer. and assistant division engineer, all on the electric division. In 1926 he was appointed assistant engineer, Grand Central Terminal, a position which he held until his recent appointment as assistant manager of the terminal.



Ernest B. Moorhouse

P. O. Bedgood has been appointed trainmaster of all subdivisions of the Louisiana-Little Rock divisions of the Missouri Pacific, with headquarters at Monroe, La., succeeding **E. K. Hunt,** who has been assigned to other duties.

C. A. Plumly, who has retired as superintendent of telegraph of the Baltimore & Ohio after 56 years on that railroad, was born at Big Run, Ohio, on October 15, 1876, and entered railroad service in 1887 as a telegraph operator of the Baltimore & Ohio Southwestern (now Baltimore & Ohio), serving at various points between Parkersburg, W. Va., and Cincinnati, Ohio, until 1902 when he became train dispatcher at Chillicothe, Ohio. He subsequently served successively as chief train dispatcher; division operator; trainmaster; and assistant superintendent of telegraph at Cincinnati. In 1913 Mr. Plumly became assistant to general superintendent, and was appointed assistant superintendent of telegraph at Baltimore the following year. In 1919 he was named superintendent of telegraph, maintaining that position until his recent retirement.

TRAFFIC

W. E. Meuse has been appointed general passenger agent of the Baltimore & Ohio with headquarters at Baltimore, Md. He is succeeded by **E. H. Riecks** as assistant general passenger agent at that location.

F. K. Beem, traveling freight agent of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Kansas City, Mo., has been promoted to general agent, with headquarters at Atlanta, Ga., succeeding **G. L. Crosby,** who has been assigned to other duties.

D. T. Daily, assistant general industrial agent of the Southern, with headquarters at Norfolk, Va., has been advanced to general industrial agent, with the same headquarters, succeeding **Warren T. White,** whose promotion to special assistant to the receivers was reported in the *Railway Age* of January 15.

L. E. Summerrow, district freight and passenger agent of the Southern, with headquarters at Tampa, Fla., has been promoted to division freight agent, with headquarters at Valdosta, Ga. **G. L. Barnard, Jr.,** commercial agent, with headquarters at Jacksonville, Fla., has been advanced to district freight and passenger agent at Tampa, succeeding Mr. Summerrow.

E. A. Bohmeyer, division passenger agent of the Missouri-Kansas-Texas, with headquarters at St. Louis, Mo., has been promoted to assistant passenger traffic manager, with the same headquarters. **J. W. Cole,** traveling passenger agent, has been advanced to division passenger agent, with headquarters as before at St. Louis, succeeding Mr. Bohmeyer. **G. W. Wagner,** assistant general passenger agent at St. Louis, has been promoted to general passenger agent, with the same headquarters, re

placing **G. R. Hecker,** whose death on July 27 was reported in the *Railway Age* of August 7, and **G. H. Overberg** has been appointed assistant general passenger agent, with headquarters at St. Louis, relieving Mr. Wagner.

A. C. Ziegan, district passenger agent of the Southern Pacific Lines in Texas and Louisiana, with headquarters at New Orleans, La., has been promoted to general passenger agent, succeeding **Edwin A. Turner,** whose death on December 6 is reported elsewhere in these columns. **F. V. Schaub,** city ticket agent, has been advanced to district passenger agent, with headquarters as before at New Orleans, replacing Mr. Ziegan.

Max Victor Beckstedt, whose promotion to the position of general traffic manager of the Delaware & Hudson at Albany, N. Y., was announced in the *Railway Age* of January 15, was born at Aultsville, Ont., on September 11, 1888. He attended Brockville Business College, and entered railway service on the Delaware & Hudson in January, 1905, as a clerk in the freight office at Rouses Point, N. Y. From February, 1907 until June, 1915, Mr. Beckstedt served as rate clerk and chief rate clerk in the general office at Albany, and in June, 1915, he became soliciting freight agent at Albany. In January, 1916, he was transferred to Binghamton, N. Y., and then to Oneonta, N. Y., as division freight and passenger agent, being advanced to general agent in the freight department at New York in July, 1922. In December, 1926, he was appointed assistant general freight agent at Albany, two years later being named general freight agent at that location. He filled the position of assistant general traffic manager from February, 1936, until his present appointment as general traffic manager with the same headquarters.

ENGINEERING & SIGNALING

Joseph L. Loida, valuation engineer of the Illinois Terminal Railroad Company, with headquarters at St. Louis, has been promoted to assistant chief engineer, with the same headquarters.

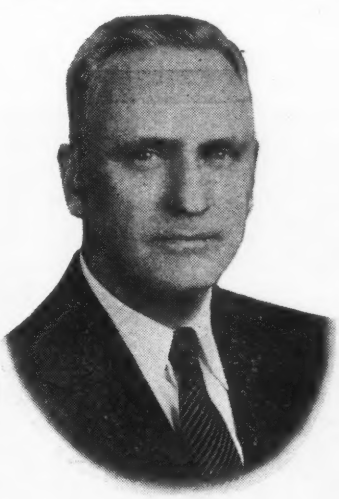
G. T. Donahue, assistant district engineer of the New York Central, Lines West of Buffalo, with headquarters at Cleveland, Ohio, has been promoted to district engineer, with the same headquarters, succeeding **J. A. Stocker,** who has been assigned to other duties. **R. R. Smith,** division engineer, with headquarters at Toledo, Ohio, has been advanced to assistant district engineer, with headquarters at Cleveland, replacing Mr. Donahue. **E. G. Brisbin,** assistant division engineer of the Michigan Central at Bay City, Mich., has been promoted to division engineer, with headquarters at Jackson, Mich., relieving **C. W. Strattman,** who has been transferred to the New York Central, Lines West of Buffalo, at Toledo, succeeding Mr. Smith.

Brewer C. Lawson, whose promotion to valuation engineer of the Terminal Railroad Association of St. Louis, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of January 15, was born at South Ashburnham, Mass., on February 14, 1896, and received his higher education at Ohio Northern University. He entered railway service in 1917 as a

Brewer C. Lawson

rodman of the Wabash and within a short time enlisted in the military service and served with the A. E. F. in France. On July 1, 1919, he returned to the Wabash as a computer in the valuation department, and on February 26, 1924, he was promoted to assistant engineer of the Moberly division. In 1927 Mr. Lawson was transferred to the St. Louis Terminal division, with headquarters at St. Louis, and three years later he was transferred back to the Moberly division, later serving on that division as track supervisor. In 1931 he was advanced to assistant engineer of the real estate department, with headquarters at St. Louis, and a short time later he was transferred to the office of the chief engineer, with the same headquarters, remaining in that position until his new appointment, effective January 1.

Edgar Bennett, whose appointment as chief engineer, maintenance of way and structures, of the Southern with headquarters at Knoxville, Tenn., was announced in the *Railway Age* of January 8, was born on May 26, 1886, at Irvington, Ky. Mr. Bennett attended Kentucky State University from 1905 until 1909, and entered railway service in September, 1909, as rodman and transitman of the Southern at Danville, Ky. He then served successively as assistant engineer, engine house construction and terminal improvement; assistant engineer, maintenance of way; and resident engineer, Southwestern district, at Chattanooga, Tenn. In April, 1920, he was appointed assistant engineer, also at Chattanooga, and five years later was named roadmaster of the New Orleans & North Eastern and New Orleans Terminal (both Southern subsidiaries). Mr. Bennett became engineer, maintenance of way, at Macon, Ga., in July, 1927, being transferred to Knoxville the following year; and was advanced to the position of assistant chief engineer, maintenance of way and structures, Central Lines, in August, 1934. He served in this capacity at Knoxville until his present appointment as chief engineer, maintenance of way and structures, Central lines, with the same headquarters.



Edgar Bennett

James Sims Wearn, whose appointment as assistant chief engineer with headquarters at Knoxville also was announced in the *Railway Age* of January 8, was born at Charlotte, N. C., on November 24, 1900. He was educated at the University of North Carolina and entered railroad service on July 1, 1918, as rodman in the office of the resident engineer of the Southern at Charlotte, N. C. He became assistant engineer, office of the engineer maintenance of way and structures, in May, 1924, and in 1928 was named track supervisor of the Coster division at Knoxville. He was appointed track supervisor of the Knoxville division with the same headquarters in June, 1929, and assistant roadmaster of that division in 1935. The following year Mr. Wearn was appointed roadmaster of the Memphis division at Sheffield, Ala., serving in that capacity until his recent appointment as assistant chief engineer at Knoxville, effective January 1.

PURCHASES AND STORES

T. J. Ruth, acting purchasing agent of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Minneapolis, Minn., has been promoted to purchasing agent, with the same headquarters.

SPECIAL

B. M. Richardson, Cedar Rapids, Iowa, has been elected chairman of the Iowa State Commerce Commission, succeeding **Carl W. Reed,** Cresco, Iowa.

James E. McKee, chief of the United Press news bureau at Nashville, Tenn., has been appointed to the staff of the public relations department of the St. Louis-San Francisco, with headquarters at St. Louis, Mo.

W. G. Murphy, manager of the news bureau of the Union Pacific, with headquarters at Omaha, Neb., has been promoted to director of public relations, with the same headquarters. **R. B. Denton,** manager of the news bureau at Los Angeles, Cal., has been advanced to director of public relations, with the same headquarters,

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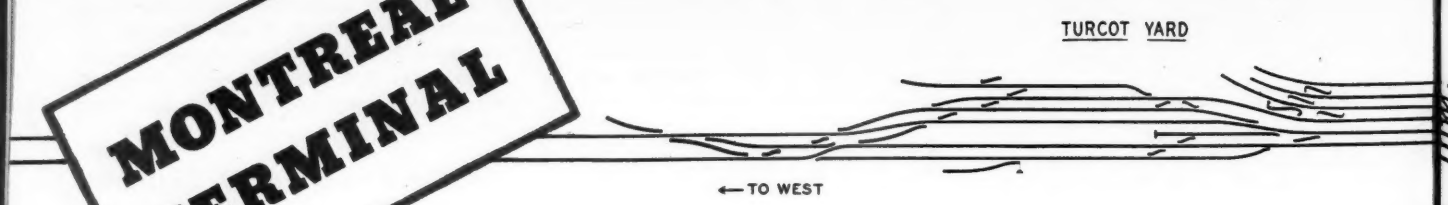
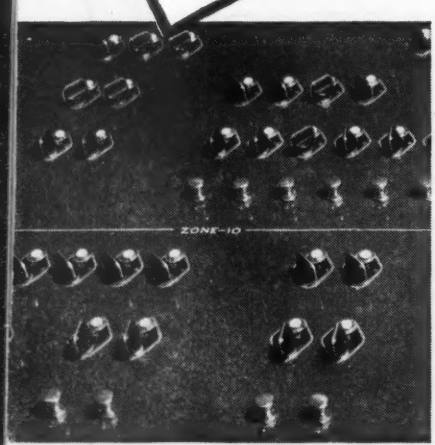
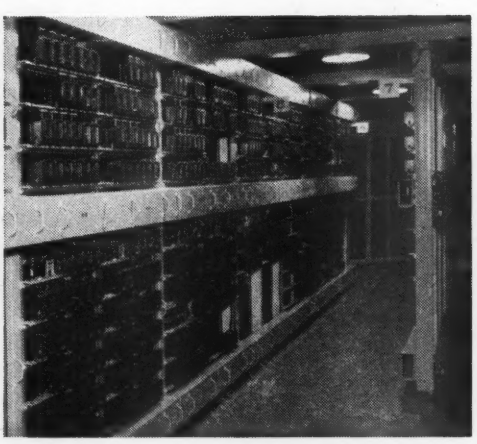
"Union" All-Relay

MONTREAL TERMINAL





Push-and-turn switch and signal levers are employed on the control machine.



Plug-in relay equipment is used throughout the installation to speed maintenance.

The installation includes 193 switch machines and 197 two-unit searchlight dwarf signals.

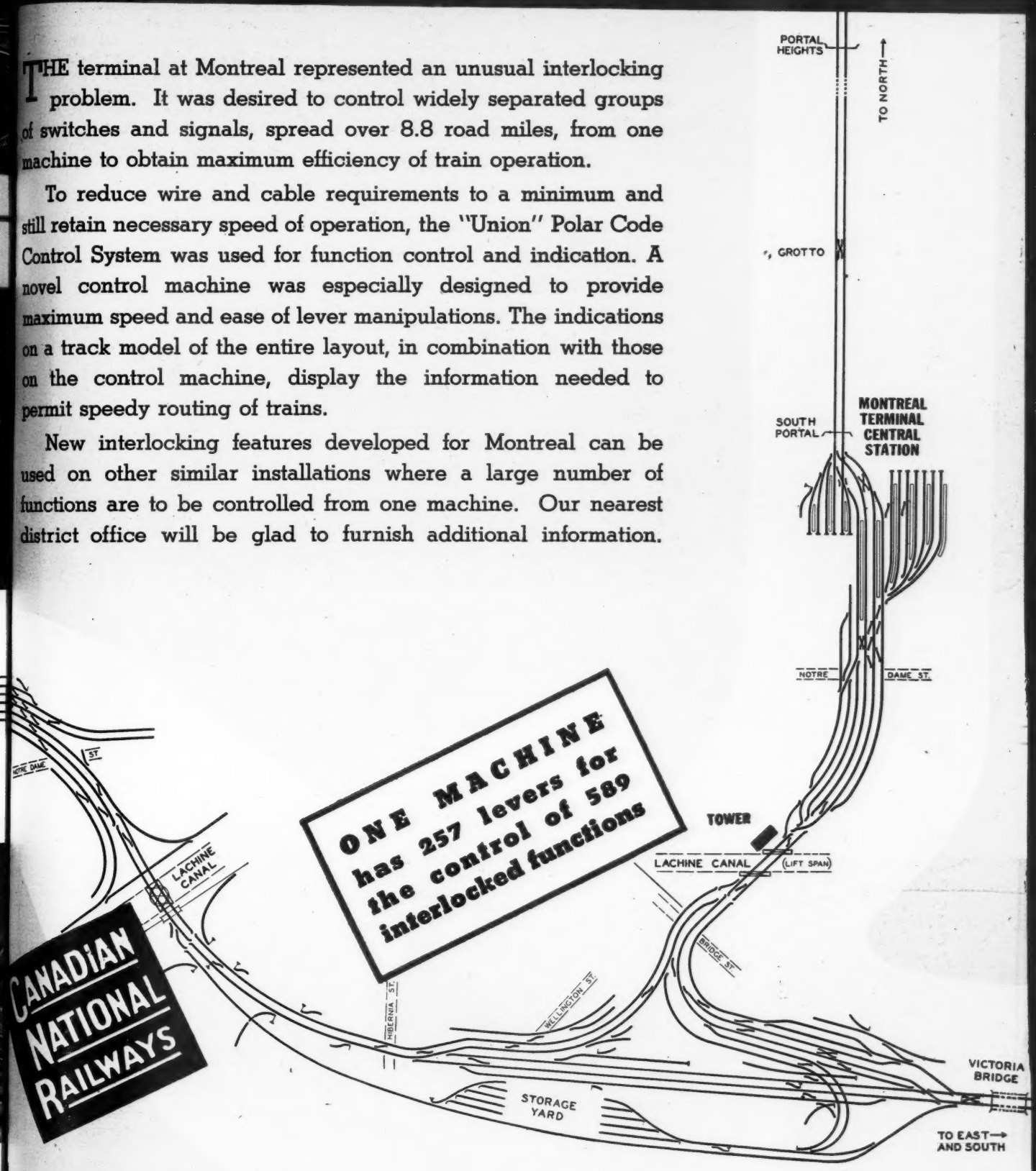
NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

y Interlocking System at Montreal!

THE terminal at Montreal represented an unusual interlocking problem. It was desired to control widely separated groups of switches and signals, spread over 8.8 road miles, from one machine to obtain maximum efficiency of train operation.

To reduce wire and cable requirements to a minimum and still retain necessary speed of operation, the "Union" Polar Code Control System was used for function control and indication. A novel control machine was especially designed to provide maximum speed and ease of lever manipulations. The indications on a track model of the entire layout, in combination with those on the control machine, display the information needed to permit speedy routing of trains.

New interlocking features developed for Montreal can be used on other similar installations where a large number of functions are to be controlled from one machine. Our nearest district office will be glad to furnish additional information.



Union Switch & Signal Company • SWISSVALE, PA.

and **J. L. Priest, Jr.,** manager of the news bureau at Salt Lake City, Utah, has been promoted to director of public relations, with the same headquarters.

G. L. Carpenter, superintendent of the department of highway motor transport of the Atchison, Topeka & Santa Fe, with headquarters at Muskogee, Okla., has been promoted to assistant to the general manager of the department of highway motor transport, with headquarters at Chicago.

J. A. Guttilla, track supervisor of the LaCrosse division of the Chicago, Burlington & Quincy, with headquarters at LaCrosse, Wis., has been promoted to assistant supervisor of safety, with headquarters at Chicago, a newly-created position.

OBITUARY

Calvin P. Clark, storekeeper of the Chicago, Rock Island & Pacific, with headquarters at El Reno, Okla., died at his home in that city recently.

C. F. Mann, who retired in 1942 as assistant treasurer of the Illinois Central, with headquarters at Chicago, died in a hospital in that city on January 14.

William F. Krone, who retired on January 1 as stationer of the St. Louis Southwestern, with headquarters at St. Louis, Mo., died in that city on January 7.

William Jay Turner, vice-president and general counsel of the Lehigh & New England, whose death on December 2 was announced in the *Railway Age* of January 1, was born in Philadelphia, Pa., and was graduated from the University of Pennsylvania Law School in 1891. Instrumental in the organization of the Lehigh & New England in 1895, Mr. Turner was president of the railroad from the date of its organization until 1907. Thereafter, until his recent death, he served as vice-president and general counsel, as well as a director, and for the last decade was a member of the executive committee. Mr. Turner was general counsel of the Lehigh Coal and Navigation Company from 1915 until his death, and a member of its board of managers from 1919 to 1938.

Edward W. Deuel, superintendent of the Pueblo division of the Denver & Rio Grande Western, with headquarters at Pueblo, Colo., died in a hospital at Denver, Colo., on January 8. Mr. Deuel was born at Grand Island, Neb., on January 1, 1874, and entered railway service in August, 1896, as a toolman of the Union Pacific, later serving in various supervisory capacities on that road. In 1906 he went with the Denver and Rio Grande (now the D. & R. G. W.) as roadmaster, with headquarters at Durango, Colo. In 1909 he was advanced to assistant division superintendent at Alamosa, Colo., and five years later he was promoted to division superintendent, with headquarters at Gunnison, Colo. In 1917 Mr. Deuel was transferred to Salt Lake City, Utah, in 1918 to Grand Junction, Colo., and in 1919 to Alamosa. In 1928 he was transferred to Salt Lake City and in August, 1935, to Pueblo, remaining in that location until his death.

Edwin A. Turner, general passenger agent of the Southern Pacific Lines in Texas and Louisiana, with headquarters at New Orleans, La., died in that city on December 6. Mr. Turner was born at Groveton, Tex., on August 26, 1890, and entered railway service with the Southern Pacific Lines in Texas and Louisiana on December 20, 1907, as an office boy of the accounting department at Houston, Tex. He later served in various clerical capacities and in 1916 he was appointed rate clerk, with headquarters at Houston. During World War I he served as a chief petty officer in the U. S. Navy and in 1919 he went with the Missouri-Kansas-Texas as a clerk of the passenger accounting department, with headquarters at Dallas, Tex. In 1920 Mr. Turner became rate and division clerk of the Vicksburg, Shreveport & Pacific (now part of the Illinois Central), with headquarters at New Orleans, and on March 1, 1927, he was appointed assistant general passenger agent of the Southern Pacific Lines in Texas and Louisiana, with the same headquarters. On July 20, 1937, he was promoted to the position he held at the time of his death.

George B. Vilas, who retired in 1937 as vice-president and general manager of the Chicago & North Western, with headquarters at Chicago, died in New York on January 14. Mr. Vilas was born in Ogdensburg, N. Y., in 1868 and was educated at Phillips Exeter Academy, Exeter, N. H. He entered railway service in 1887 as a station helper on the Chicago & North Western at Paullina, Iowa, which position he held until 1888 when he was transferred to Eagle Grove. From 1890 to 1896 he was agent at Kenosha, Wis., and from 1896 to 1903 freight agent at Milwaukee. In the latter year he was promoted to trainmaster at this point, which position he held until 1908, when he was promoted to assistant division superintendent at Baraboo, Wis. Two years later he was promoted to division superintendent, in 1912 to assistant general superintendent at Chicago, in 1915

George B. Vilas

to general superintendent and in 1919 to assistant general manager. He held the latter position until 1924, when he was promoted to general manager. In 1934 he was elected to vice-president and general manager, the position he was holding at the time of his retirement.

Horace E. Newcomet, vice-president, Western region, of the Pennsylvania, with headquarters at Chicago, died on January 14, following a lengthy illness. Mr. Newcomet was born at Philadelphia, Pa., on April 27, 1874, and graduated from the University of Pennsylvania. From 1897 to 1901, he served successively as acting assistant engineer on the Cleveland & Pittsburgh division and assistant engineer maintenance of way on the Cincinnati division. For the following 12 years he was engineer maintenance of way of the Indianapolis & Vincennes division, the Cincinnati division and the Erie & Ashtabula division and division engineer of the Cleveland & Pittsburgh division. He was promoted to superintendent of the Louisville division in January, 1913, and was transferred to the Logansport division in March, 1918, and to the Cleveland & Pittsburgh division in March, 1920. Three years later he was promoted to general superintendent of the Lake division, with headquarters at Cleveland, Ohio, then being further promoted to general manager of

Horace E. Newcomet

the Western region, with headquarters at Chicago, in September, 1926. On June 12, 1929, Mr. Newcomet was elected to the position he held at the time of his death.

100,000 WOMEN are on the payrolls of the British railways, compared to 25,000 before the war, it is noted by Modern Transport (London). Those doing manual work are constantly on the increase. Observing that, while women have shown "remarkable aptitude and are responsive to safety instruction," it is revealed that in 1942 there was a notable rise in serious casualties. The periodical suggests greater precautions are needed, and that women should adopt safety fashions in dress and headgear.

A RECENT RECORD of an express-messenger helper's job, in taking care of live traffic on fast through railway express trains, showed that during a period of nine days, he fed, watered and otherwise attended 211 live creatures. Among them were 66 birds, 75 dogs, lots of chickens, ducks, rabbits, and pigeons, as well as three cats, some guinea pigs, aquarium fish in tank containers, a turtle, a hog, a crow, a horse and a snake.